

EP/WO Equivalent Record

Ceperley 10/030,999

L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2001:676340 HCAPLUS
 DOCUMENT NUMBER: 135:223796
 TITLE: Linker system for activating surfaces for bioconjugation and methods for their use
 INVENTOR(S): Klapproth, Holger
 PATENT ASSIGNEE(S): Biochip Technologies G.m.b.H., Germany
 SOURCE: Eur. Pat. Appl., 11 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

Considered
08/21/03
MKE

parent to
this
applic.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1132739	A1	20010912	EP 2000-110428	20000516
EP 1132739	B1	20010926		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 206211	E	20011015	AT 2000-110428	20000516
ES 2164632	T3	20020301	ES 2000-110428	20000516
WO 2001088535	A1	20011122	WO 2001-EP5557	20010516
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2003022189	A1	20030130	US 2002-30999	20020116
PRIORITY APPLN. INFO.: EP 2000-110428 A 20000516				
WO 2001-EP5557 W 20010516				
OTHER SOURCE(S): MARPAT 135:223796				
AB	The present invention relates to a linker system for activating surfaces for bioconjugation, and particularly to a linker system having a novel hydrophilic spacer group. The inventive linker system may be used for the construction of sensor chips or biochips for the detection of sample biomols. Higher hybridization signals were obtained when <u>1-(2-(Glycidyl)-ethoxyl-ethoxyltrimethoxysilane (GEETS)-treated slides</u> were used in the coupling of amine-modified oligonucleotides instead of epoxypropyltrimethoxysilane.			
IC	ICM G01N033-53			
CC	9-16 (Biochemical Methods)			
ST	linker system activating surfaces bioconjugation; silane GEETS immobilization oligonucleotide glass slide			
IT	Proteins, specific or class			
	RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (A, and gold-based label system; linker system for activating surfaces for bioconjugation and methods for use)			
IT	Purification (affinity; linker system for activating surfaces for bioconjugation and methods for use)			
IT	Chemiluminescent substances			

Colored materials
 Fluorescent substances
 Phosphorescent substances
 Radioactive substances
 (as labels; linker system for activating surfaces for bioconjugation
 and methods for use)

IT Enzymes, uses
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (as labels; linker system for activating surfaces for bioconjugation
 and methods for use)

IT Glass, reactions
 Polymers, reactions
 RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or
 reagent); USES (Uses)
 (as surface; linker system for activating surfaces for bioconjugation
 and methods for use)

IT Analysis
 (biochem.; linker system for activating surfaces for bioconjugation and
 methods for use)

IT Biotechnology
 (biochips; linker system for activating surfaces for bioconjugation and
 methods for use)

IT Luminescent substances
 (bioluminescent, as labels; linker system for activating surfaces for
 bioconjugation and methods for use)

IT Antibodies
 RL: ARG (Analytical reagent use); BPR (Biological process); BSU
 (Biological study, unclassified); DEV (Device component use); RCT
 (Reactant); ANST (Analytical study); BIOL (Biological study); PROC
 (Process); RACT (Reactant or reagent); USES (Uses)
 (chimeric; linker system for activating surfaces for bioconjugation and
 methods for use)

IT Sensors
 (chips; linker system for activating surfaces for bioconjugation and
 methods for use)

IT Enzymes, biological studies
 RL: ARG (Analytical reagent use); BAC (Biological activity or effector,
 except adverse); BPR (Biological process); BSU (Biological study,
 unclassified); DEV (Device component use); RCT (Reactant); ANST
 (Analytical study); BIOL (Biological study); PROC (Process); RACT
 (Reactant or reagent); USES (Uses)
 (conjugates; linker system for activating surfaces for bioconjugation
 and methods for use)

IT Agglutinins and Lectins
 Antibodies
 Antigens
 Avidins
 DNA
 Nucleic acids
 Oligonucleotides
 RNA
 Receptors
 RL: ARG (Analytical reagent use); BPR (Biological process); BSU
 (Biological study, unclassified); DEV (Device component use); RCT
 (Reactant); ANST (Analytical study); BIOL (Biological study); PROC
 (Process); RACT (Reactant or reagent); USES (Uses)
 (conjugates; linker system for activating surfaces for bioconjugation

- and methods for use)
- IT Immunoglobulins
 - RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 - (fragments; linker system for activating surfaces for bioconjugation and methods for use)
- IT Affinity chromatographic stationary phases
 - Biochemical molecules
 - Coupling agents
 - Diagnosis
 - Diels-Alder reaction
 - Enzyme electrodes
 - Immobilization, biochemical
 - Medical goods
 - Nucleic acid hybridization
 - Samples
 - Substitution reaction, nucleophilic
 - (linker system for activating surfaces for bioconjugation and methods for use)
- IT Agglutinins and Lectins
 - Antibodies
 - Antigens
 - Carbohydrates, analysis
 - DNA
 - Nucleic acids
 - Oligonucleotides
 - RNA
 - Receptors
 - RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
 - (linker system for activating surfaces for bioconjugation and methods for use)
- IT Glycoconjugates
 - Peptide nucleic acids
 - RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 - (linker system for activating surfaces for bioconjugation and methods for use)
- IT Analytical apparatus
 - Microanalysis
 - (microarray; linker system for activating surfaces for bioconjugation and methods for use)
- IT Antibodies
 - RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
 - (monoclonal, conjugates; linker system for activating surfaces for bioconjugation and methods for use)
- IT Addition reaction
 - (nucleophilic; linker system for activating surfaces for bioconjugation and methods for use)

IT Hydrophilicity
(of spacer group of linker; linker system for activating surfaces for
bioconjugation and methods for use)

IT Substitution reaction
(radical; linker system for activating surfaces for bioconjugation and
methods for use)

IT Antibodies
RL: ARG (Analytical reagent use); BPR (Biological process); BSU
(Biological study, unclassified); DEV (Device component use); RCT
(Reactant); ANST (Analytical study); BIOL (Biological study); PROC
(Process); RACT (Reactant or reagent); USES (Uses)
(single chain; linker system for activating surfaces for bioconjugation
and methods for use)

IT 7440-57-5, Gold, reactions 7631-86-9, Silica, reactions
14808-60-7, Quartz, reactions 60676-86-0, Fused silica
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or
reagent); USES (Uses)
(as surface; linker system for activating surfaces for bioconjugation
and methods for use)

IT 58-85-5D, Biotin, conjugates 9013-20-1D, Streptavidin,
conjugates
RL: ARG (Analytical reagent use); BPR (Biological process); BSU
(Biological study, unclassified); DEV (Device component use); RCT
(Reactant); ANST (Analytical study); BIOL (Biological study); PROC
(Process); RACT (Reactant or reagent); USES (Uses)
(linker system for activating surfaces for bioconjugation and methods
for use)

IT 107-18-6, Allyl alcohol, reactions 556-52-5, Glycidol
5414-19-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(linker system for activating surfaces for bioconjugation and methods
for use)

IT 359404-47-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(linker system for activating surfaces for bioconjugation and methods
for use)

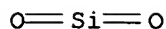
IT 7440-21-3, Silicon, reactions
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or
reagent); USES (Uses)
(wafer, as surface; linker system for activating surfaces for
bioconjugation and methods for use)

IT 7440-57-5, Gold, reactions 7631-86-9, Silica, reactions
14808-60-7, Quartz, reactions 60676-86-0, Fused silica
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or
reagent); USES (Uses)
(as surface; linker system for activating surfaces for bioconjugation
and methods for use)

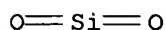
RN 7440-57-5 HCAPLUS
CN Gold (8CI, 9CI) (CA INDEX NAME)

Au

RN 7631-86-9 HCAPLUS
CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 14808-60-7 HCAPLUS
CN Quartz (SiO₂) (9CI) (CA INDEX NAME)

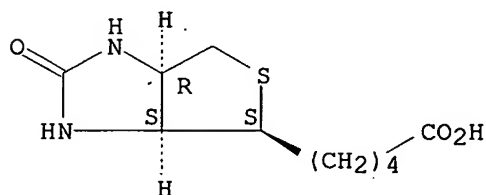


RN 60676-86-0 HCAPLUS
CN Silica, vitreous (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 58-85-5D, Biotin, conjugates 9013-20-1D, Streptavidin, conjugates
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(linker system for activating surfaces for bioconjugation and methods for use)
RN 58-85-5 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

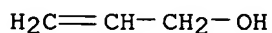
Absolute stereochemistry. Rotation (+).



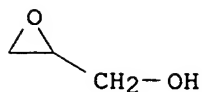
RN 9013-20-1 HCAPLUS
CN Streptavidin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

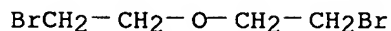
IT 107-18-6, Allyl alcohol, reactions 556-52-5, Glycidol 5414-19-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(linker system for activating surfaces for bioconjugation and methods for use)
RN 107-18-6 HCAPLUS
CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



RN 556-52-5 HCAPLUS
CN Oxiranemethanol (9CI) (CA INDEX NAME)

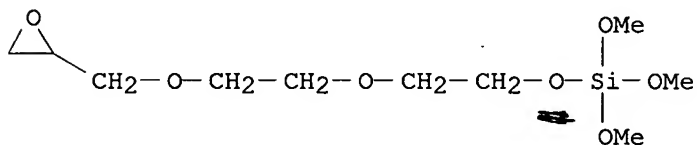


RN 5414-19-7 HCAPLUS
CN Ethane, 1,1'-oxybis[2-bromo- (9CI) (CA INDEX NAME)



IT **359404-47-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(linker system for activating surfaces for bioconjugation and methods for use)

RN 359404-47-0 HCAPLUS
CN Silicic acid (H₄SiO₄), trimethyl 2-[2-(oxiranylmethoxy)ethoxy]ethyl ester (9CI) (CA INDEX NAME)



IT **7440-21-3**, Silicon, reactions
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(wafer, as surface; linker system for activating surfaces for bioconjugation and methods for use)

RN 7440-21-3 HCAPLUS
CN Silicon (7CI, 8CI, 9CI) (CA INDEX NAME)

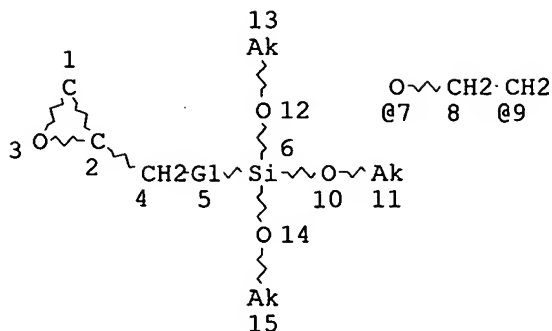
Si

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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MTC

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L1

STR



← P.8 structure

Linker = G1 = PEG (OCH₂CH₂)₁₋₂₀

REP G1=(1-20) 7-4 9-6
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 11
CONNECT IS E1 RC AT 13
CONNECT IS E1 RC AT 15
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L3 6 SEA FILE=REGISTRY SSS FUL L1
L4 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

=> d ibib abs hitstr l4 1-30

L4 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:113110 HCAPLUS
DOCUMENT NUMBER: 138:161019
TITLE: Heat-developable silver halide photosensitive material
containing surfactant-intercalated compound
INVENTOR(S): Hanyu, Takeshi
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003043625	A2	20030213	JP 2001-236456	20010803
PRIORITY APPLN. INFO.:			JP 2001-236456	20010803
AB The photosensitive material contains inclusion compds. comprising layered compds. in which .gtoreq.1 F-contg. anionic or nonionic surfactants are intercalated. The layered compds. may be clay minerals and the				

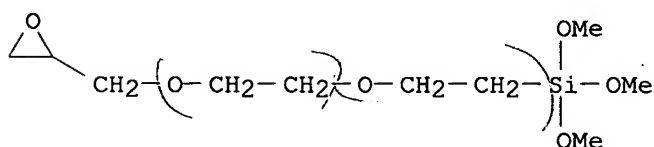
surfactants have F-substituted (excluding perfluoro) alkyl or alkenyl groups. Preferably, the inclusion compds. are added in a protective layer together with a matting agent and a crosslinking agent. The photosensitive material has high scratch resistance and high-d. images with low haze can be formed.

IT 496850-74-9

RL: CAT (Catalyst use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(crosslinking agent; heat-developable silver halide photosensitive material contg. surfactant-intercalated clay mineral in protective layer for high scratch resistance)

RN 496850-74-9 HCAPLUS

CN 2,6,9-Trioxa-3-siladecane, 3,3-dimethoxy-10-oxiranyl- (9CI) (CA INDEX NAME)



L4 ANSWER (2) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:868332 HCAPLUS

DOCUMENT NUMBER: 136:7809

TITLE: Compositions for abrasion-resistant films and methods for coating a substrate

INVENTOR(S): Nebo, Jon; Singh, Anant; Georges, George; Haghighat, Ross; Shepp, Allan

PATENT ASSIGNEE(S): Triton Systems, Inc., USA

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001089820	A2	20011129	WO 2001-US16534	20010522
WO 2001089820	A3	20020411		

W: AU, CA, CN, JP, KP, MX

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

AU 2001063357 A5 20011203 AU 2001-63357 20010522

PRIORITY APPLN. INFO.: US 2000-206592P P 20000523

WO 2001-US16534 W 20010522

AB A coated substrate includes a first layer comprising inorg. filler particles such as alumina dispersed in .gtoreq.1 hydrolyzable silane such as .gamma.-glycidoxypopyltrimethoxysilane and a second layer comprising .gtoreq.1 compatibilizing agent (may also be an oxysilane) in adhesive contact with the substrate.

IT 20526-39-0

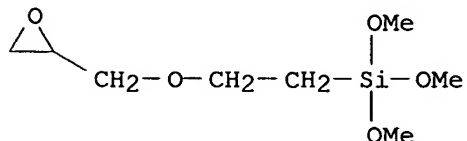
RL: TEM (Technical or engineered material use); USES (Uses)

(abrasion-resistant films of filled hydrolyzable silane layers on

(primed) polycarbonate)

RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER (3) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:111522 HCAPLUS

DOCUMENT NUMBER: 134:148416

TITLE: Radiation-curable silicone compositions

INVENTOR(S): Thayer, Leroy Elton; Tonge, James Steven; Vincent, Gary Allen

PATENT ASSIGNEE(S): Dow Corning Corporation, USA

SOURCE: U.S., 11 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6187834	B1	20010213	US 1999-392037	19990908
EP 1083205	A1	20010314	EP 2000-119646	20000908
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1291629	A	20010418	CN 2000-131376	20000908
JP 2001131417	A2	20010515	JP 2000-273565	20000908
TW 500771	B	20020901	TW 2000-89118460	20000913

PRIORITY APPLN. INFO.: US 1999-392037 A 19990908

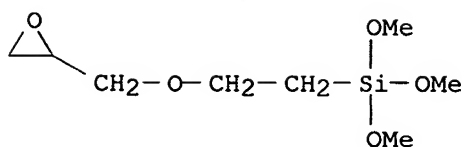
AB A radiation curable silicone compn. comprises: (a) at least one alkoxyated resin-polymer organosilicone network obtained by a method comprising: (I) reacting a mixt. comprising: (A) a Component selected from the group consisting of: (A)(i) at least one silicone polymer contg. at least two hydroxy groups; (A)(ii) at least one org. polymer contg. at least two hydroxy groups; and (A)(iii) a mixt. of (A)(i) and (A)(ii); (B) an MQ organosilicone resin; (C) at least one alkoxy silane contg. at least one radiation curable group; and (D) a catalytic amt. of a basic catalyst; and (II) adding (E) a neutralizing agent to the product of (I); and (b) a cationic photoinitiator. The radiation curable silicone compns. of this invention are useful as fast curing low and high release coating compns. which are esp. suitable for release of pressure sensitive adhesives.

IT 20526-39-0, .beta.-Glycidoxyethyltrimethoxysilane
56325-91-8

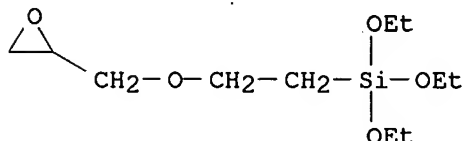
RL: TEM (Technical or engineered material use); USES (Uses)
(radiation-curable silicone compns.)

RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



RN 56325-91-8 HCAPLUS
 CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER (4) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2001:78461 HCAPLUS
 DOCUMENT NUMBER: 134:149060
 TITLE: Crosslinkable composition useful in pigmented coatings for ceramics
 INVENTOR(S): Tang, Robert H.; Zhang, Yingchao; Nehmsmann, Louis J.; Wang, Alan E.; Morris, George D.; Montague, Robert A.
 PATENT ASSIGNEE(S): PPG Industries Ohio, Inc., USA
 SOURCE: PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001007528	A1	20010201	WO 2000-US19958	20000721
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG EP 1214382 A1 20020619 EP 2000-950542 20000721 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL PRIORITY APPLN. INFO.: US 1999-359473 A 19990722 WO 2000-US19958 W 20000721				

AB A crosslinking compn., esp. useful as a component of a compn. useful for coating ceramic substrates, comprises (a) amino-functional curing agent; (b) blocked polyisocyanate; and, optionally, (c) organo-functional siloxane comprising a member selected from the group consisting of

epoxy-functional siloxane, amino-functional siloxane, (blocked isocyanato)-functional siloxane, and a mixt. of two or more thereof. The compn. useful for coating ceramic substrates comprises (a) reactive org. resin which is polyhydroxy-functional, polyepoxy-functional, or epoxy-functional and hydroxy-functional; (b) color-imparting pigment; (c) reactive wax; and (d) the above crosslinking compn. The coating compn. may be applied to ceramic substrates and cured. The preferred ceramic substrates are glass bottles.

IT 20526-39-0, 2-(Glycidyloxy)ethyl)trimethoxysilane

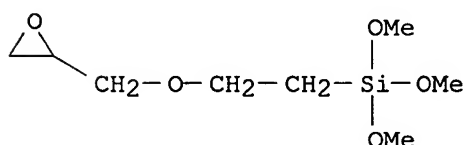
56325-91-8

RL: TEM (Technical or engineered material use); USES (Uses)

(crosslinkable compn. useful in pigmented coatings for ceramics)

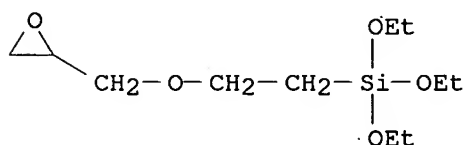
RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



RN 56325-91-8 HCAPLUS

CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:78335 HCAPLUS

DOCUMENT NUMBER: 134:149059

TITLE: Forming a sequence of crosslinked pigmented coatings on ceramic substrates

INVENTOR(S): Tang, Robert H.; Zhang, Yingchao; Nehmsmann, Louis J.; Wang, Alan E.; Morris, George D.; Montague, Robert A.

PATENT ASSIGNEE(S): PPG Industries Ohio, Inc., USA

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001007376	A1	20010201	WO 2000-US19957	20000721
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,				

IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
 MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6214414 B1 20010410 US 1999-359471 19990722

PRIORITY APPLN. INFO.: US 1999-359471 A 19990722

OTHER SOURCE(S): MARPAT 134:149059

AB Each of the pigmented coating compns. comprises (a) reactive org. resin which is polyhydroxy-functional, polyepoxy-functional, or both epoxy-functional and hydroxy-functional, (b) reactive wax, (c) color-imparting pigment, and (d) blocked polyisocyanate crosslinker, where (i) the pigmented coating compns. of .gtoreq.1 coating of the sequence is substantially free of amino-functional curing agent, and (ii) the pigmented coating compn. of .gtoreq.1 other coating of the sequence further comprises amino-functional curing agent; to crosslink all of the pigmented coating compns. of the coatings of the sequence and to adhere the sequence to the ceramic substrate. The preferred ceramic substrates are glass bottles. The outermost coating of the sequence may optionally be coated with a substantially clear overcoating compn. (top coat) of reactive org. resin which is polyhydroxy-functional, polyepoxy-functional, or both epoxy-functional and hydroxy-functional.

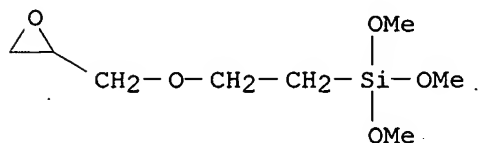
IT 20526-39-0, (2-(Glycidyloxy)ethyl)trimethoxysilane

RL: TEM (Technical or engineered material use); USES (Uses)

(multilayer crosslinked pigmented coatings on ceramic substrates)

RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:238501 HCAPLUS

DOCUMENT NUMBER: 132:239274

TITLE: Preparation of mercaptan oxidation catalyst

INVENTOR(S): Liu, Haichao; Ran, Guopeng; Min, Enze

PATENT ASSIGNEE(S): China Petrochemical Corp., Peop. Rep. China; Research Institute of Petroleum Processing, China Petrochemical Corp.

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

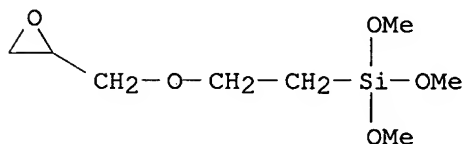
LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PRIORITY APPL. INFO.: CN 1997-104441 19970604
OTHER SOURCE(S): MARPAT 132:239274
AB The catalyst is composed of modified basic solid oxide support and Co aminophthalocyanine (CoPc(NH₂)_m, where, m is, preferably, 4) connected with the support by covalent bond. The basic solid oxide has a chem. formula of xMO.yM'₂O₃, where, M is from Mg, Ni, Zn, Cu, Fe, and Co; M' is from Al, Cr, and Ga; x/y is 1-15:1. The basic oxide is prepd. by calcining layered double hydroxide with a general formula of M_xM'_y(OH)_{2x+2y(X)y/n}.zH₂O, where, X is selected from CO₃²⁻, NO₃⁻, and halogen, z = 1-50, and n is the valence state of X. The catalyst is prepd. by modifying the basic solid oxide with silanizing reagent of (RO)₃Si(CH₂)_nA (where R is C1-4 alkyl, n = 1-6, and A is halogen or epoxy group) at a ratio of 1:0.005-0.15 in org. solvent of toluene and xylene at 60-110.degree., filtering, washing, drying, reacting with a polar solvent contg. Co aminophthalocyanine at 30-150.degree., filtering, washing, and drying; the ratio of Co aminophthalocyanine:support is 0.001-0.1:1.
IT 20526-39-0
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(in prepn. of mercaptan oxidn. catalysts for petroleum sweetening)
RN 20526-39-0 HCAPLUS
CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:406013 HCAPLUS
DOCUMENT NUMBER: 129:96320
TITLE: Process for improving adhesion of electroconductive
metal oxide layers to polymeric substrates and
articles produced thereby
INVENTOR(S): Knox, Carol L.
PATENT ASSIGNEE(S): PPG Industries, Inc., USA
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9825995	A1	19980618	WO 1997-US21549	19971121
W: BR, CA, CN, JP, KR, MX, SG				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRIORITY APPLN. INFO.:			US 1996-766549	19961211
AB The method includes the steps of coating the polymeric substrate such as a				

plastic lens with a compn. contg. at least one polymer-forming organosilane, which when cured forms a non-tintable coating, and depositing an electroconductive metal oxide on the cured silane coating to form an adherent layer, e.g., a film or coating, thereon. Also described are electrooptical articles such as electrochromic articles, which utilize such articles.

IT 20526-39-0, .beta.-Glycidyloxyethyltrimethoxysilane

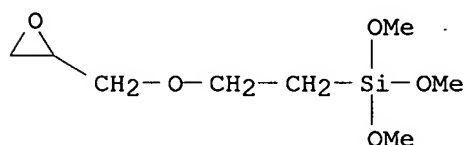
56325-91-8, .beta.-Glycidyloxyethyltriethoxysilane

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(improving the adhesion of electroconductive metal oxide layers to polymeric substrates with an organosilane treatment)

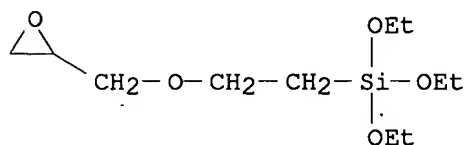
RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



RN 56325-91-8 HCAPLUS

CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

6

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN.

ACCESSION NUMBER: 1998:1328 HCAPLUS

DOCUMENT NUMBER: 128:62988

TITLE: Noncorrosive translucent room-temperature-vulcanizable compositions

INVENTOR(S): Lucas, Gary M.; Wengrovius, Jeffrey H.

PATENT ASSIGNEE(S): General Electric Co., USA

SOURCE: U.S., 7 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

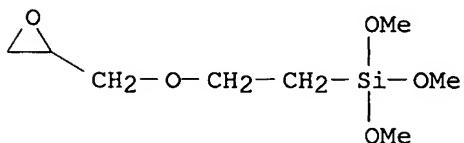
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5698653	A	19971216	US 1996-644791	19960510
US 5674936	A	19971007	US 1996-688593	19960730
EP 806450	A2	19971112	EP 1997-303172	19970509
EP 806450	A3	19980408		

R: DE, FR, GB, IT
JP 10087993 A2 19980407 JP 1997-118537 19970509
PRIORITY APPLN. INFO.: US 1996-644791 19960510
US 1996-688593 19960730
OTHER SOURCE(S): MARPAT 128:62988
AB Sealing compns. consist essentially of an alkyl- and alkoxy-stopped diorganopolysiloxane, a polyalkoxysilane crosslinking agent, and a tetraalkyl titanate condensation catalyst. Thus, a sealant contained dimethoxymethylsilyl-terminated polydimethylsiloxane 68.75, fumed silica treated with octamethylcyclotetrasiloxane and hexamethyldisilazane 19, trimethylsilyl-terminated polydimethylsiloxane 10, methyltrimethoxysilane 1, and tetraisopropyl titanate 0.75 parts.
IT 20526-39-0, .beta.-Glycidoxyethyltrimethoxysilane
RL: MOA (Modifier or additive use); USES (Uses)
(adhesion promoters; noncorrosive translucent room-temp.-vulcanizable sealant compns. contg. silicone rubber and vulcanizing agents and catalysts and fillers)
RN 20526-39-0 HCAPLUS
CN Silane, trimethoxy[2-(oxiranylethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1996:731276 HCAPLUS
DOCUMENT NUMBER: 125:342717
TITLE: Silver halide photographic emulsion and material and
its processing
INVENTOR(S): Hanyu, Takeshi
PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08220673	A2	19960830	JP 1995-29468	19950217
PRIORITY APPLN. INFO.:			JP 1995-29468	19950217
AB	<p>The emulsion is chem. sensitized in the presence of .gtoreq.1 compd. selected from a CO2H-active film-hardening agent, an active vinyl sulfonyl compd., an active halo compd., an epoxy-contg. silane, a carbodiimide compd., ethyleneurea-HCHO adduct, hydantoin-HCHO adduct, an active acryloyl compd., and Group V or VIII metals. The material obtained from the emulsion is treated with a developer contg. ascorbic acid or isoascorbic acid. The treatment time between development and drying of the material .ltoreq.60 s. The material showed high sensitivity, low fog, and good sharpness.</p>			
IT	183679-63-2			

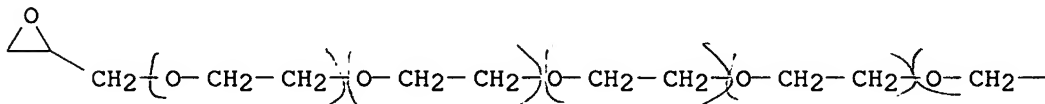
RL: DEV (Device component use); MOA (Modifier or additive use); USES
(Uses)

(high-sensitivity chem. sensitized silver halide photog. emulsion and
its processing)

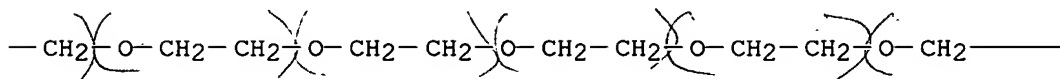
RN 183679-63-2 HCAPLUS

CN 2,6,9,12,15,18,21,24,27,30,33-Undecaoxa-3-silatetatriacontane,
3,3-dimethoxy-34-oxiranyl- (9CI) (CA INDEX NAME)

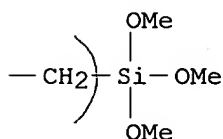
PAGE 1-A



PAGE 1-B



PAGE 1-C



L4 ANSWER (10) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:193840 HCAPLUS

DOCUMENT NUMBER: 120:193840

TITLE: One-component room temperature-vulcanizable silicone
elastomer with improved primerless adhesion to
polycarbonate

INVENTOR(S): Lucas, Gary M.

PATENT ASSIGNEE(S): General Electric Co., USA

SOURCE: U.S., 16 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5232982	A	19930803	US 1992-864745	19920407
CA 2092449	AA	19931008	CA 1993-2092449	19930325
EP 565309	A1	19931013	EP 1993-302593	19930401
R: DE, FR, GB				
JP 06017027	A2	19940125	JP 1993-78396	19930406

PRIORITY APPLN. INFO.: US 1992-864745 19920407

OTHER SOURCE(S): MARPAT 120:193840

AB Shelf-stable compns. curable to the title rubbers comprise polyalkoxy-terminated poly(dimethylsiloxanes) with viscosity 50-65,000 cP at 25.degree., SiO₂ 5-20, CN-contg. alkoxysilanes 0.3-1, mixt. of triorganosilyl-terminated poly(diorganosiloxanes) and monoalkylsiloxy-contg. siloxanes 15-30, alkoxysilane crosslinkers .ltoreq.5, polysilazane stabilizers 0.3-1.7, diorganotin bis-diketone catalysts 0.14-0.34, and epoxysilane adhesion promoters 0.1-2 phr. A room temp.-vulcanizable compn. of MeSi(OMe)₂-terminated poly(dimethylsiloxane) 60, SiO₂ 12, cyanopropyltrimethoxysilane 0.5, Me₃Si-terminated poly(dimethylsiloxane) 18, MDT silanol (tri- and tetrafunctional low-viscosity siloxane oil) 7, MeSi(OMe)₃ 1, HMDS 1, Bu₂Sn bis(acetylacetonate) 0.24, and glycidoxypropyltrimethoxysilane 0.7 part showed good adhesion to polycarbonates.

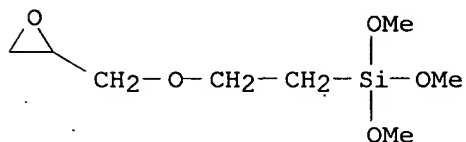
IT 20526-39-0

RL: USES (Uses)

(coupling agents with cyanosilanes, silicone rubber sealants contg., for polycarbonates)

RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER (11) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:151152 HCAPLUS

DOCUMENT NUMBER: 120:151152

TITLE: Epoxy sealed semiconductor devices

INVENTOR(S): Kitamura, Fujio; Nagasawa, Toku

PATENT ASSIGNEE(S): Nitto Denko Corp, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

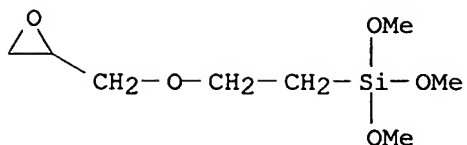
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05144984	A2	19930611	JP 1991-328200	19911115
PRIORITY APPLN. INFO.:			JP 1991-328200	19911115
AB A semiconductor device is sealed with an epoxy resin and is resistant to moisture. The epoxy resin sealing mixt. consists of epoxy resin, phenolaralkyl resin, and 60-40% silica powder.				
IT 20526-39-0				
RL: USES (Uses)				
(surface treating agent, in semiconductor device sealing compd.)				
RN 20526-39-0 HCAPLUS				
CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)				



L4 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1994:32927 HCAPLUS
DOCUMENT NUMBER: 120:32927
TITLE: Tintable abrasion-resistant UV-curable coating
compositions, their preparation and use
INVENTOR(S): Evans, Chana W.; Revis, Anthony
PATENT ASSIGNEE(S): Dow Corning Corp., USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5232964	A	19930803	US 1991-790906	19911112
PRIORITY APPLN. INFO.:			US 1991-790906	19911112

OTHER SOURCE(S) : MARPAT 120:32927

AB A tinting-enhancing quaternary ammonium salt $R_4N^+A^-$ (each R = C1-18 hydrocarbyl; A^- = anion) is added to .ltoreq.1 multifunctional acrylate monomer, which may also contain colloidal silica and an amino silane, acryloxy silane, glycidoxysilane, and/or vinyl silane. Adding 1.4 g allyltriethylammonium bromide to 9.5 g of a mixt. of (3-aminopropyl)trimethoxysilane, iso-PrOH, hexanediol diacrylate, trimethylolpropane triacrylate, and colloidal silica gave a coating, which was applied to a polycarbonate panel and cured under UV light to give a film having 100% adhesion and good abrasion resistance and tintability (light transmission after dyeing 14%).

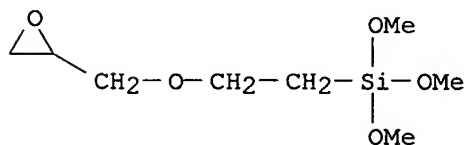
IT 20526-39-0 56325-91-8

RL: USES (Uses)

(acrylate photocurable coatings contg. silica, quaternary ammonium salt and, tintable)

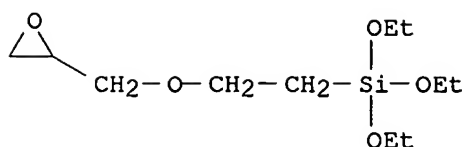
RN 20526-39-0 HCAPLUS

CN	Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]-	(9CI)	(CA INDEX NAME)
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RN 56325-91-8 HCAPLUS

CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



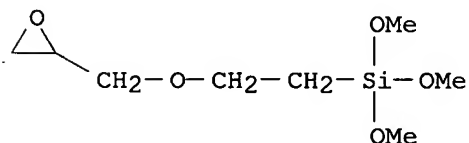
L4 ANSWER 13 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1990:574111 HCAPLUS
 DOCUMENT NUMBER: 113:174111
 TITLE: Receptor sheet for sublimation thermal-transfer printing media
 INVENTOR(S): Ichii, Masaru; Fukuda, Kozo; Morishita, Kenji
 PATENT ASSIGNEE(S): Nisshinbo Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02107480	A2	19900419	JP 1988-259574	19881017
PRIORITY APPLN. INFO.:			JP 1988-259574	19881017

AB Image receiving layers of the claimed receptor sheet, on which a sublimable dye is deposited, contain a releasing agent prepd. by reaction of an oxyalkylene oligomer having an active group with a silane coupler. The receptor sheet shows good coating properties, releasing properties, and no yellow coloration. Thus, a paper was coated with a compn. contg. Vylonal MD 1200 (satd. polyester resin), a viscous agent, and a releasing agent prepd. from poly(propylene glycol) and glycidoxypropyltrimethoxysilane at 100.degree. in the presence of an alkali catalyst to give a receptor sheet. This receptor sheet and a color ink sheet were put on together, and thermally printed, showing good discoloration-resistance under high humidity condition.

IT 20526-39-0D, reaction product with polypropyleneglycol
 RL: USES (Uses)
 (thermal-transfer receptor sheet contg., as a releasing agent, for nonimpact printing)

RN 20526-39-0 HCAPLUS
 CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)

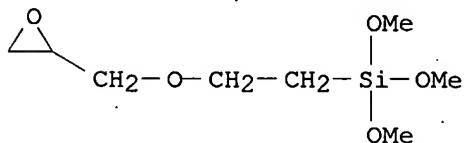


L4 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1990:506298 HCAPLUS
 DOCUMENT NUMBER: 113:106298
 TITLE: Infrared-sensitive photographic plates with glass

support
 INVENTOR(S): Sanpei, Takeshi
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02073344	A2	19900313	JP 1988-226050	19880909

PRIORITY APPLN. INFO.: JP 1988-226050 19880909
 OTHER SOURCE(S): MARPAT 113:106298
 GI For diagram(s), see printed CA Issue.
 AB The emulsion side of the title plates contains a dye or dyes selected from tricarboyanine dyes, and from dicarboyanine dyes having a 4-quinolyl group, and also contains a silane coupling agent. These materials for direct imaging with a semiconductor laser provide high contrast, and their emulsion layer is resistant to peeling off in processing. Thus, a Ag(Br,I) Lippman emulsion was sensitized, mixed with 0.5 mmol/mol Ag carboyanine sensitizer dye I, and with the coupling agent II, and was applied on a backcoated glass plate without an undercoat, to form a layer contg. 5.9 g gelatin and 2.8 g Ag per m². Sensitometric exposure to filtered light (10-5-s pulse) and processing gave a neg. with high sensitivity and contrast. The emulsion layer was undamaged when soaked in a developer, scratched with tweezer, and then with rubbed with a finger.
 IT 20526-39-0
 RL: USES (Uses)
 (photog. IR spectral sensitizer, IR-sensitive high-contrast photog. plates contg.)
 RN 20526-39-0 HCAPLUS
 CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER (15) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1990:45810 HCAPLUS
 DOCUMENT NUMBER: 112:45810
 TITLE: Sublimation thermal-transfer recording receptor sheet
 INVENTOR(S): Komine, Tsutomu
 PATENT ASSIGNEE(S): Nisshinbo Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01171989	A2	19890706	JP 1987-330193	19871228
JP 2539652	B2	19961002		

PRIORITY APPLN. INFO.: JP 1987-330193 19871228

AB The title sheet comprising a sublimation dye-accepting layer on a support contains a silane coupler reaction product in the receptor layer and/or in a release layer on the receptor layer. The sheet having releasability and storage stability gives a printed image with a high color d. Thus, a compn. comprising S-Lec C, DMF, and Ti oxide was coated onto a polypropylene film and overcoated with a compn. comprising Vylonal MD 1200, N-.beta.-(aminoethyl)-.gamma.-aminopropyltrimethoxysilane, and ethylene glycol diglycidyl ether to give the title sheet, which was laminated with a polyester film coated with a mixt. of a red disperse dye and Et cellulose and printed upon by using a thermal head to give a printed image having moisture resistance.

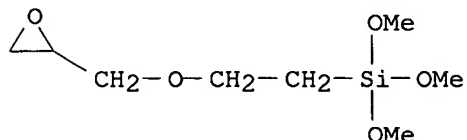
IT 20526-39-0D, reaction products

RL: USES (Uses)

(sublimation thermal-transfer printing receptor sheet contg.)

RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER (16) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:635425 HCAPLUS

DOCUMENT NUMBER: 111:235425

TITLE: Treatment of wood with silane coupling agents for improved dimensional stability

INVENTOR(S): Makino, Atsushi

PATENT ASSIGNEE(S): Matsushita Electric Works, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01136704	A2	19890530	JP 1987-296331	19871125

PRIORITY APPLN. INFO.: JP 1987-296331 19871125

AB Wood is impregnated with an aq. soln. of a silane coupling agent and dried. Thus, a piece of wood (pine, Japanese cypress, or beech) was immersed in a 2% aq. soln. of .beta.-glycidloxyethyltrimethoxysilane at 1 mmHg for 24 h and then dried at .apprx.80.degree. for 10 h. The wood showed reduced swelling or max. value 30 as 100(SC - ST)/SC where SC is swelling of untreated wood and ST is swelling of treated wood.

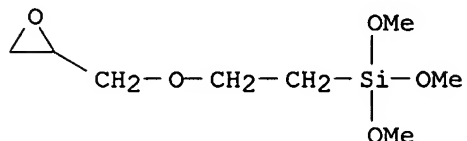
IT 20526-39-0

RL: USES (Uses)

(wood treated with soln. of, for reduced swelling)

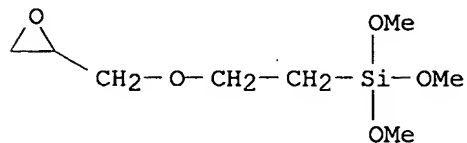
RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



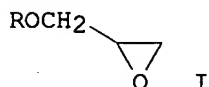
L4 ANSWER (17) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1989:544019 HCAPLUS
 DOCUMENT NUMBER: 111:144019
 TITLE: Electrophotographic photoreceptor
 INVENTOR(S): Miyagawa, Minoru
 PATENT ASSIGNEE(S): Olympus Optical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63296051	A2	19881202	JP 1987-132726	19870528
PRIORITY APPLN. INFO.:			JP 1987-132726	19870528
AB The substrate for an electrophotog. photoreceptor comprises an anodized Al sheet whose pores are filled with a F-contg. resin bonded to the pore walls via a silane coupling agent. The substrate possesses good lubricity, moisture resistance, and wearability.				
IT 20526-39-0				
RL: USES (Uses) (coupling agents, aluminum electrophotog. photoreceptor substrate treatment using)				
RN 20526-39-0 HCAPLUS				
CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)				



L4 ANSWER (18) OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1989:153686 HCAPLUS
 DOCUMENT NUMBER: 110:153686
 TITLE: Competition between photoinduced hydrogen abstraction and electron transfer in 9,10-phenanthrenequinone/glycidyl ether/iodonium salt mixtures

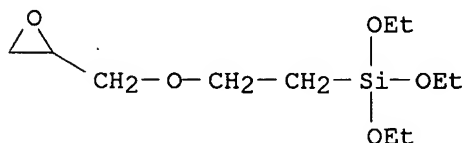
AUTHOR(S): Timpe, Hans Joachim; Rajendran, Arigokal G.; Franzke, Michael; Koerner, Kati
 CORPORATE SOURCE: Sek. Chem., Tech. Hochsch. "Carl Schorlemmer", Merseburg, DDR-4200, Ger. Dem. Rep.
 SOURCE: Zeitschrift fuer Chemie (1988), 28(8), 300-1
 CODEN: ZECEAL; ISSN: 0044-2402
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 GI



AB Quantum yields of 0.40-1.45 were detd. for the photobleaching of 9,10-phenanthrenequinone with glycidyl ethers I [R = Ph, m- and p-tolyl, p-ClC6H4, (EtO)3SiCH2CH2, Et, Me2CHCH2] in MeCN, and H-abstraction rate consts. ($k \times 10^5$ L/mol s) of 3.6, 70.0, and 2.8 were detd. in the cases of I (R = Ph, p-tolyl, p-ClC6H4, resp.). An electron-transfer rate const. of $\approx 10^8$ L/mol s was estd. for a system contg. Ph2I+ PF6-.

IT **56325-91-8**
 RL: PRP (Properties)
 (photochem. hydrogen abstraction from, by phenanthrenequinone)

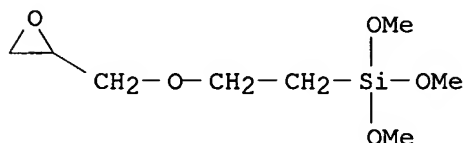
RN 56325-91-8 HCAPLUS
 CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1987:215166 HCAPLUS
 DOCUMENT NUMBER: 106:215166
 TITLE: Automobile window glass preparation
 INVENTOR(S): Niwa, Tetsuo; Murachi, Tatsuya
 PATENT ASSIGNEE(S): Toyoda Gosei Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62005850	A2	19870112	JP 1986-68198	19860326
JP 03049750	B4	19910730		

PRIORITY APPLN. INFO.: JP 1985-67107 19850329
 AB Glass coated with silane coupling agents contg. epoxy, amino, and/or SH groups and topcoated with a polyurethane, polyurethane acrylate, chloroprene-phenolic resin-polyisocyanate copolymer (optionally contg. org. acids), butyl rubber-neoprene compn., or neoprene-acrylate compn. has good adhesion to PVC weatherstripping.
 IT 20526-39-0
 RL: USES (Uses)
 (couplers, for automotive window glass to PVC weatherstripping)
 RN 20526-39-0 HCAPLUS
 CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER (20 OF 30) HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1987:34085 HCAPLUS
 DOCUMENT NUMBER: 106:34085
 TITLE: Dimensionally stable and heat-resistant propylene polymer compositions
 INVENTOR(S): Asakino, Hiroyoshi; Suzuki, Kyoaki; Iwai, Kenji; Nishida, Mamoru; Kawamura, Takanobu
 PATENT ASSIGNEE(S): Chisso Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

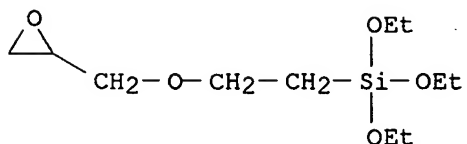
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61197650	A2	19860901	JP 1985-38329	19850227

PRIORITY APPLN. INFO.: JP 1985-38329 19850227

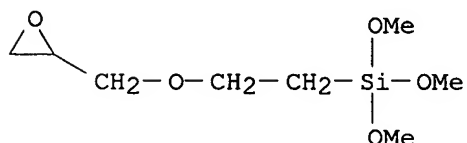
AB Compns. contg. a 3-12:88-97 ethylene-propylene block copolymer (I) prepd. from 70-95% polypropylene with 1.00 .gtoreq. P .gtoreq. 0.015 log MFR + 0.955 (P = isotactic pentad fraction, MFR = melt flow rate) blocked by 5-30% ethylene-propylene mixt. 20-85, a silane-treated inorg. filler 10-40, and an unsatd. carboxylic acid- or anhydride-modified polypropylene (II) 5-30% have good processability, rigidity, heat-distortion resistance, dimensional stability, and scratch resistance and are useful in prepg. automobile interior parts, elec. app., etc. Thus, a mixt. of 8.5:91.5 I (P = 0.98, MFR = 30) 40, 0.4% maleic anhydride-modified II 20, and 0.1% aminopropyltriethoxysilane-treated talc (av. particle size 2 .mu.) 40% was extruded to give a sheet having flexural modulus 47,000 kg/cm², heat-distortion temp. 144.degree., and dimensional stability (2 h at 80.degree.) 4.9 mm/300 mm.

IT 56325-91-8
 RL: USES (Uses)
 (coupling agents, for talc filler in propene polymers)
 RN 56325-91-8 HCAPLUS

CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1986:182430 HCAPLUS
 DOCUMENT NUMBER: 104:182430
 TITLE: Co-immobilized pyruvate kinase and lactate dehydrogenase as recycling system for ATP
 AUTHOR(S): Slegers, G.; De Laet, S.; Lambrecht, R. H.; Block, C.
 CORPORATE SOURCE: Fac. Pharm. Sci., State Univ. Ghent, Ghent, B-9000, Belg.
 SOURCE: Enzyme and Microbial Technology (1986), 8(3), 153-6
 CODEN: EMTED2; ISSN: 0141-0229
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Pyruvate kinase (EC 2.7.1.40) (I) and lactate dehydrogenase (EC 1.1.1.27) (II) were immobilized onto porous glass beads. A screening of the immobilization of I on different derivatized glass beads is described. The selected immobilization procedure was further optimized. Coimmobilization of I with an excess of II was studied. The I- and II-loaded glass beads were packed into a column. Regeneration of ATP from ADP as a function of flow rate, enzyme loading, and column dimensions was investigated.
 IT 20526-39-0D, derivs., reaction products with glass
 RL: BIOL (Biological study)
 (lactate dehydrogenase and pyruvate kinase coimmobilization on)
 RN 20526-39-0 HCAPLUS
 CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1986:131487 HCAPLUS
 DOCUMENT NUMBER: 104:131487
 TITLE: Regulation of the properties of perchlorovinyl-polyurethanes by introduction of plasticizer-diluents
 AUTHOR(S): Laskovenko, N. N.; Sytnik, L. L.; Krivchenko, G. N.; Tsykhanskaya, I. I.
 CORPORATE SOURCE: Inst. Khim. Vysokomol. Soedin., Kiev, USSR
 SOURCE: Lakokrasochnye Materialy i Ikh Primenenie (1985), (5), 21-3
 CODEN: LAMAAD; ISSN: 0023-737X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

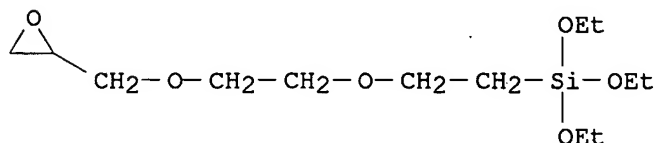
AB Small amts. (3-5%) of plasticizers either decreased or increased the viscosity of chlorinated PVC-polyurethane coatings, depending on the chem. structure of the plasticizers and polyurethanes, whereas larger amts. of plasticizers acted only as diluents. Addn. of 3-5% plasticizers decreased the glass temp. and flow point of the coatings, but did not change significantly or increased the hardness and the degree of crosslinking of the cured coatings. The plasticizers used in the study included di-Bu phthalate [84-74-2], castor oil, epoxy silane [101155-98-0], DEG-1 [25928-94-3], and UP-650T [68665-20-3].

IT 101155-98-0

RL: MOA (Modifier or additive use); USES (Uses)
(plasticizers, chlorinated PVC-polyurethane coatings contg., properties of)

RN 101155-98-0 HCAPLUS

CN 2,5,9-Trioxa-8-silaundecane, 8,8-diethoxy-1-oxiranyl- (9CI) (CA INDEX NAME)



L4 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1985:140755 HCAPLUS

DOCUMENT NUMBER: 102:140755

TITLE: Method of producing transparency by electrophotography

PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59119352	A2	19840710	JP 1982-228543	19821227
JP 04047820	B4	19920805		

PRIORITY APPLN. INFO.: JP 1982-228543 19821227

AB The claimed method consists of (1) corona charging of an electrophotog. photoreceptor having a releasing layer, (2) imagewise exposure, (3) toner image formation using a dispersion of an olefinic resin having carbonyl groups in an insulating liq., (4) transfer of the toner image by pressure to a metal layer supported by a transparent substrate, and (5) etching of the metal layer using the toner image as a resist to form a transparency. The method provides images having high resolu. and stability with high sensitivity. Thus, a compn. contg. Rose Begal-sensitized ZnO, a urethane-modified silicone varnish (KR305 from Shin-etsu Chem. Co.), ethylcellulose acetate, and an isocyanate (Coronate 2031 from Nippon Polyurethane Ind.) was coated on a Al plate. A primer layer contg. .gamma.-glycidoxypyltrimethoxysilane (KBM403 from Shin-etsu Chem. Ind.)

and a silicone oil (KF96L-0.65CS, the same film) was formed and a releasing layer contg. a silicone rubber (KS705F, the same), a silicone oil (same as in primer), and catalyst (PS, the same film) was then coated to obtain a photoreceptor. A toner was obtained by dissolving partially saponified ethylene-vinyl acetate copolymer (Dumilan C-2270, Takeda Chem. Ind.) in hot PhMe, cooling, and addn. of Isopar H which pptd. the resin as particles. The patternwise exposed photoreceptor was developed using the toner. The toner image was transferred to an Al surface of an Al-laminated poly(ethylene terephthalate) film by pressure and heat-fixed. Spraying with 0.5% NaOH gave an etched product, which was subject to redn. with a NaOH soln. Resoln. f 150 line/in (5-95%) was obtained.

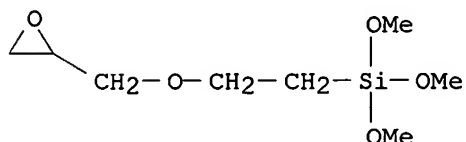
IT 20526-39-0

RL: USES (Uses)

(primer layer contg. silicone oil and, for electrophotog. plate for metal image transparency prodn.)

RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 24 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1982:584055 HCAPLUS

DOCUMENT NUMBER: 97:184055

TITLE: Abrasion-resistant ultraviolet light-curable hard coating compositions

INVENTOR(S): Chung, Rack H.

PATENT ASSIGNEE(S): General Electric Co., USA

SOURCE: U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 129,297.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>US 4348462</u>	A	19820907	US 1980-167622	19800711
EP 47299	A1	19820317	EP 1981-900791	19810302
R: DE, FR, GB				
CA 1166786	A1	19840501	CA 1981-376679	19810501
WO 8200295	A1	19820204	WO 1981-US743	19810604
W: AU, BR, DK, JP, NO				
RW: FR, GB, NL, SE				
AU 8173292	A1	19820216	AU 1981-73292	19810604
JP 57500984	T2	19820603	JP 1981-502270	19810604
JP 03002168	B4	19910114		
EP 55726	A1	19820714	EP 1981-901856	19810604
R: FR, GB, NL, SE				
BR 8108697	A	19820810	BR 1981-8697	19810604
CA 1158794	A1	19831213	CA 1981-380250	19810619

ES 503600	A1	19830216	ES 1981-503600	19810701
DE 3126662	A1	19820408	DE 1981-3126662	19810707
BE 889580	A1	19820111	BE 1981-205371	19810710
NO 8200632	A	19820301	NO 1982-632	19820301
DK 8200978	A	19820305	DK 1982-978	19820305

PRIORITY APPLN. INFO.:

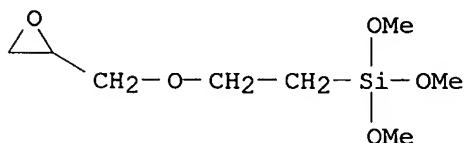
US 1980-129297	19800311
US 1980-167622	19800711
WO 1981-US743	19810604

AB The title coatings, useful on transparent plastics, contain colloidal SiO₂, (acryloyloxy)- or (glycidyoxy)silanes, acrylates, and UV-sensitive, cationic or radical photoinitiators. Thus, 47 g 3-(trimethoxysilyl)propyl methacrylate was added over 20 min to 175 g 34% aq. colloidal SiO₂ (NalCO 1034A) at 25.degree., stirred 40 min, and mixed with 2-hydroxyethyl acrylate [818-61-1] 68, diethylene glycol diacrylate [4074-88-8] 25, Ph₂I⁺ AsF₆⁻ [62613-15-4] 1, and PhCOCH(Ph)OEt 2.5 g. This mixt. was coated on Lexan polycarbonate, dried 40 min in air, and cured 6 S under UV light in N to give a clear, hard coating with good adhesion.

IT 20526-39-0D, hydrolyzed 56325-91-8D, hydrolyzed
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, photocurable and abrasion-resistant for polycarbonates)

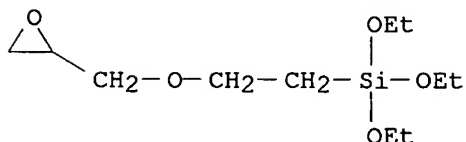
RN 20526-39-0 HCAPLUS

CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



RN 56325-91-8 HCAPLUS

CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1981:482529 HCAPLUS

DOCUMENT NUMBER: 95:82529

TITLE: Primer compositions

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

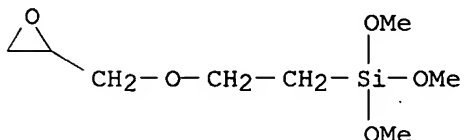
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 56038366 A2 19810413 JP 1979-114017 19790904
 PRIORITY APPLN. INFO.: JP 1979-114017 19790904
 AB Primer compns. contg. the reaction product of an organoalkoxysilane contg. epoxy groups, an organoalkoxysilane contg. amino groups, and an organosilane contg. unsatd. hydrocarbon groups or mercapto groups are water-resistant. Thus, 100 parts [3-[(2-glycidyloxy)ethyl]trimethoxysilane (I) was treated with 40 parts [3-[(2-aminoethyl)amino]propyl]trimethoxysilane (II) and 50 parts [3-(methacryloyloxy)propyl]trimethoxysilane to give a product (III). Mortar plate was coated with a primer contg. 30% III and subsequently coated with a compn. contg. poly(oxypropylene) contg. terminal SiMe(MeO)₂ groups to give a coated plate with layer bond strength 6.0 kg/cm² and 5.8 kg/cm² (after immersion in H₂O for 7 days at 20.degree.), compared with 5.8 kg/cm² and 4.0 kg/cm², resp., for the plate primed with I-II reaction product instead of III.
 IT 20526-39-0D, reaction products with [3-[(2-aminoethyl)amino]propyl]trimethoxysilane and [3-(methacryloyloxy)propyl]trimethoxysilane
 RL: USES (Uses)
 (primer coatings, on mortar plates, water-resistant)
 RN 20526-39-0 HCAPLUS
 CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



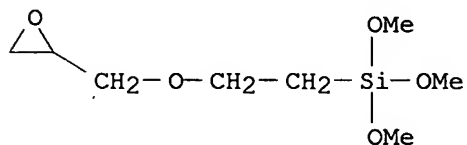
L4 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1981:48471 HCAPLUS
 DOCUMENT NUMBER: 94:48471
 TITLE: Polymer films
 PATENT ASSIGNEE(S): Suwa Seikosha Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55114563	A2	19800903	JP 1979-23904	19790228

PRIORITY APPLN. INFO.: JP 1979-23904 19790228
 AB A polarizable polymer film comprises a polymer film with .gtoreq.1 side coated with an anchoring material, the surface of which is covered with an oxide film. Thus, a 180-.mu.-thick panel consisting of a poly(vinyl alc.) [9002-89-5] film contg. a polarizer sandwiched between 2 cellulose triacetate films, was dipped into a H₂N(CH₂)₂NH(CH₂)₃Si(OMe)₃ soln. (1 vol.% in iso-PROH) and dried at 80.degree. for 15 min. One side of the panel was sputter-coated with 1000-.ANG. SiO₂ at 70.degree./5 .times. 10-3 torr. A 500-.ANG.-thick 95:5 In₂O₃-SnO₂ transparent electroconductive film was formed on the oxide surface. Segments were made by etching, and orientation was induced by rubbing. The panel showed good adhesion of all

components to each other during these treatments. Using 2 panels and glass fibers (8-.mu.-diam., .apprx.20-30-.mu. length) as spacers, a liq. crystal display system was constructed. The liq. crystal did not interact with the panel material. The system lasted >290 h at 60.degree. and 90% relative humidity, 3 times longer than conventional set-ups, due to the SiO2 moisture and gas barrier. The process allowed liq. crystal display systems as thin as .apprx.370 .mu..

IT 20526-39-0
 RL: USES (Uses)
 (coupling agents, for optical display system laminates)
 RN 20526-39-0 HCAPLUS
 CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)

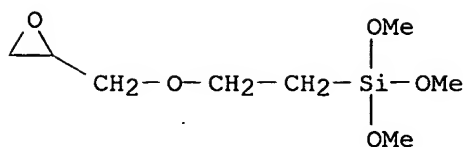


L4 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1980:60535 HCAPLUS
 DOCUMENT NUMBER: 92:60535
 TITLE: Coating of transparent plastics with thermosetting resins
 INVENTOR(S): Kaetsu, Isao; Kumakura, Minoru; Yoshida, Masaru; Shimaoka, Goro; Koda, Hiroyuki; Taniyama, Susumu
 PATENT ASSIGNEE(S): Japan Atomic Energy Research Institute, Japan; Mitsubishi Gas Chemical Co., Inc.
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54107999	A2	19790824	JP 1978-15593	19780214
PRIORITY APPLN. INFO.:			JP 1978-15593	19780214

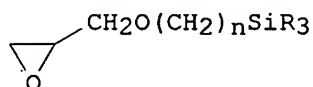
AB Compns. contg. a glycidylalkoxyalkyl or epoxycyclohexylalkyl group-contg. alkoxy silane, HClO4, MeOH, and a hydrolyzed alkoxy silane are applied to transparent plastic moldings to form hard coatings. Thus, a mixt. of glycidylmethoxymethyltrimethoxysilane 100, HClO4 0.7, and MeOH 10 parts was combined with a refluxed (7 h) mixt. of tetra-Me silicate 70, H2O 30, MeOH 100, and HCl 0.3 part. The compn. was applied to a polycarbonate plate and heated 4 h at 120.degree. to form a transparent coating having excellent abrasion and scratch resistance.

IT 20526-39-0D, hydrolyzed
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, for transparent plastics)
 RN 20526-39-0 HCAPLUS
 CN Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1980:37282 HCAPLUS
 DOCUMENT NUMBER: 92:37282
 TITLE: Liquid chromatographic supports for separating nucleic acid bases and related compounds
 INVENTOR(S): Seida, Toru; Shimizu, Akihiko; Kato, Yoshio; Hashimoto, Tsutomu
 PATENT ASSIGNEE(S): Toyo Soda Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54072787	A2	19790611	JP 1977-139416	19771122
JP 57026818	B4	19820607		
PRIORITY APPLN. INFO.: GI			JP 1977-139416	19771122



I

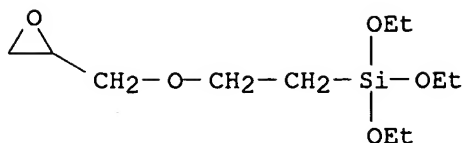
AB Adsorbents and solid carriers for sepn. of nucleic acid bases and related compds. are prepd. Porous silica gel beads are treated with I (R = OCH₃, OC₂H₅; n = 2-3) and then with nucleosides and(or) nucleotides in the presence of carbonates to give a material with 2-200 .mu.m diam. and 10-2000 .ANG. pore size. Sepn. is based on the interaction between nucleic acid bases. Thus, thymine (30 g), porous silica gel beads (25 g, 10-12 .mu.m diam, 80 .ANG. pore size), I (30 g, R = OCH₃; n = 3), and PhMe (250 mL) were mixed and refluxed for 24 h. The resultant product was washed with PhMe and Me₂CO to give epoxy group-contg. silica gel beads. The beads (20 g) then were treated with N,N-dimethylformaldehyde (150 mL) in the presence of 2 g anhyd. K₂CO₃ at 85.degree. for 24 h and the product was thoroughly washed with N,N-dimethylformaldehyde and then MeOH and dried. The prepn. was used in the sepn. of a mixt. contg. cytidine, uridine, guanosine, and adenosine.

IT 56325-91-8

RL: ANST (Analytical study)
 (silica gel beads contg. thymine and, for nucleic acid bases and related compd. chromatog.)

RN 56325-91-8 HCAPLUS

CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1975:517276 HCAPLUS
 DOCUMENT NUMBER: 83:117276
 TITLE: Coatings on transparent resin plates
 INVENTOR(S): Ito, Akihiko; Kaetsu, Isao; Ohkubo, Hiroshi; Kato, Masamichi; Hayashi, Koichiro
 PATENT ASSIGNEE(S): Japan Atomic Energy Research Institute, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50040674	A2	19750414	JP 1973-90535	19730814
US 3955035	A	19760504	US 1974-495169	19740806

PRIORITY APPLN. INFO.: JP 1973-90535 19730814

AB Transparent plastic substrates are coated with (glycidylalkoxy)trialkoxysilane with or without another compatible polymer and cured to improve the surface hardness of the substrates. Thus, a mixt. of [3-(glycidylalkoxy)propyl]trimethoxysilane 100, CHCl₃ 5, Me₂CO 5, and HClO₄ 1 part at 0.degree. was applied to a polycarbonate [463-79-6] plate and left 16 hr at room temp. to form an 0.088 mm coating [56325-93-0] having pencil hardness >9H and good abrasion, solvent, boiling H₂O, and alkali (20% NaOH) resistance. Similarly treated were poly(Me methacrylate) [9011-14-7] plates with poly[[2-(glycidylalkoxy)ethyl]triethoxysilane] [56325-92-9].

IT 56325-92-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, on methyl methacrylate polymer plates, for increased surface hardness)

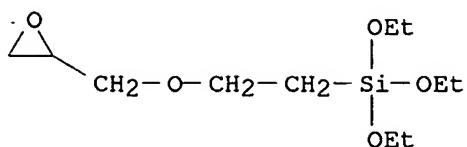
RN 56325-92-9 HCAPLUS

CN Silane, triethoxy[2-(oxiranylmethoxy)ethyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

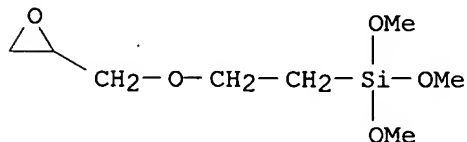
CRN 56325-91-8

CMF C11 H24 O5 Si



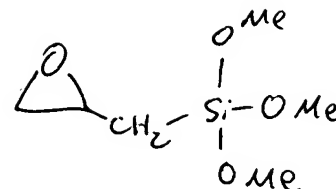
L4 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1974:16147 HCAPLUS
 DOCUMENT NUMBER: 80:16147
 TITLE: Bonding rubber to polyester fiber
 INVENTOR(S): Mizunuma, Susumu; Shirakami, Taro; Idei, Takeo
 PATENT ASSIGNEE(S): Ohtsu Tire and Rubber Co., Ltd.
 SOURCE: Jpn. Tokkyo Koho, 6 pp.
 CODEN: JAXXAD
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 48008589	B4	19730315	JP 1969-51896	19690630
AB	Good adhesion between rubber and polyester tire cord was obtained by treating the cord with an aq. dispersion of an epoxy resin-rubber mixt. and a water-sol. or dispersible org. silicon compd. of the formula $\text{RnSiR}_1(4-n)$ (R = Me, vinyl, 2-(2,3-epoxypropoxy)ethyl, 3-(2-aminoethylamino) propyl, 3-aminopropyl, 4-aminobutyl; R1 = Me, MeO EtO; n = 1-3). Polyethylene terephthalate fiber tire cord was heated 80 sec at 200.deg. in a dispersion contg. epoxy resin dispersion (4.5 g glycerol diglycidyl ether in 45 g water) 29.0, carboxy styrene-butadiene copolymer latex 60.0, 6.3% aq. m-C6H4(NH2)2 10.0, and N-(dimethoxymethylsilylpropyl)ethylenediamine [3069-29-2] 1.0 part. The cord was treated with a latex, aged 20 hr, heated 100 sec at 220.deg., embedded in a natural rubber compn. and vulcanized 30 min at 140.deg. to give a strongly bonded rubber-fiber product.				
IT	20526-39-0				
	RL: TEM (Technical or engineered material use); USES (Uses) (adhesives, for polyester cord, for rubber tires)				
RN	20526-39-0 HCAPLUS				
CN	Silane, trimethoxy[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)				



④ EPOXY PROPYL TRIMETHOXY SILANE

Ceperley 10/030,999



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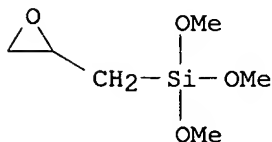
L27 2448 SEA FILE=REGISTRY ABB=ON PLU=ON "EPOXYPROPYL"
 L28 4157 SEA FILE=REGISTRY ABB=ON PLU=ON "TRIMETHOXY SILANE"
 L29 1 SEA FILE=REGISTRY ABB=ON PLU=ON L27 AND L28
 L30 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L29

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08/21/03
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L30 ANSWER ① OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2003:116710 HCAPLUS
 DOCUMENT NUMBER: 138:178206
 TITLE: Two-component electrostatographic developer and replenisher therefor
 INVENTOR(S): Ikeda, Naotaka; Okato, Kenji; Mikuriya, Hiroshi; Yoshizaki, Kazumi
 PATENT ASSIGNEE(S): Canon Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 33. pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003043756	A2	20030214	JP 2001-231695	20010731
PRIORITY APPLN. INFO.:			JP 2001-231695	20010731
AB The title developer consists of toner having an external additive and a carrier having magnetic particles dispersed in a resin and has 2-15 % toner concn., wherein the toner fluidity satisfies the equation: $A-B \cdot \log_{10} 0.5$ s. where A is fluidity of 8 % toner-contg. developer magnetized under 1000/4.pi..cntdot.kA/m(100 Oe.) and where B is fluidity of 8 % toner-contg. non-magnetized developer. The developer shows the good fluidity and the high durability.				
IT 20222-57-5, Glycidyltrimethoxysilane RL: RCT (Reactant); RACT (Reactant or reagent) (surface treating agent for iron oxide; two-component developer and replenisher therefor)				
RN 20222-57-5 HCAPLUS				
CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)				



L30 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2003:116693 HCAPLUS
 DOCUMENT NUMBER: 138:178193
 TITLE: Magnetic toners having specific physical properties and specific iron amount on surface

INVENTOR(S): Kaburagi, Takeshi; Makago, Michihisa; Kawamoto, Keiji;
 Chiba, Takehiko; Takiguchi, Takeshi; Hashimoto, Akira
 PATENT ASSIGNEE(S): Canon Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

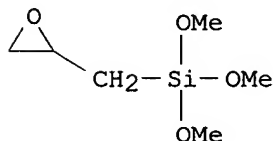
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003043738	A2	20030214	JP 2001-264945	20010730
PRIORITY APPLN. INFO.:			JP 2001-264945	20010730

AB The title toner contains a binder resin, iron oxide, and wax and satisfies the following conditions: .gtoreq.0.97 roundness degree; <0.001 of (Fe content)/(C content) on the surface according to X-ray photo-electron spectroscopy; .gtoreq.50 no. % content of particles having .ltoreq.0.2 of (min. distance between iron oxide and the surface in the toner cross section)/(circle-equiv. diam. of the toner) ratio value according to TEM; and 1.0.ltoreq.(coagulation degree after pressured and heated)/(coagulation degree under ambient temp. and ambient pressure).ltoreq.2.5. The toner shows good characteristics on image transfer, image quality, service-life.

IT **2022-57-5**, Glycidyltrimethoxysilane
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (magnetic toners)

RN 2022-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2001:816784 HCAPLUS
 DOCUMENT NUMBER: 135:358675
 TITLE: Rheology-controlled epoxy-based compositions
 INVENTOR(S): Kozak, Kyra M.
 PATENT ASSIGNEE(S): Loctite Corporation, USA
 SOURCE: PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001083607	A1	20011108	WO 2001-US11727	20010423
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
 HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1282660 A1 20030212 EP 2001-926841 20010423

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2003036587 A1 20030220 US 2002-204871 20020826

PRIORITY APPLN. INFO.:

US 2000-198744P P 20000421

WO 2001-US11727 W 20010423

AB A rheol. controlled epoxy compn. comprises: (a) an epoxy resin component;
 (b) a rheol. control agent selected from the group consisting of
 epoxysilanes, aminosilanes, trialkoxysilyl isocyanurate derivs., and
 combinations thereof; (c) a curing agent component comprising a member
 selected from the group consisting of amine compds., amide compds.,
 imidazole compds., and combinations thereof; and (d) optionally, an inorg.
 filler component. The compns. are useful in applications selected from
 bonding a silicon substrate to a flex circuit, a flex circuit to a pen
 body, sealing underfilling between a semiconductor chip and a circuit
 board to which the semiconductor chip is elec. connected, and sealing
 underfilling between a semiconductor device including a semiconductor chip
 mounted on a carrier substrate and a circuit board to which the
 semiconductor device is elec. connected. The compns. are particularly
 well suited for use in coating applications such as in the assembly of ink
 jet printheads for the printing industry, and in the microelectronics
 industry such as in the assembly of semiconductor devices.

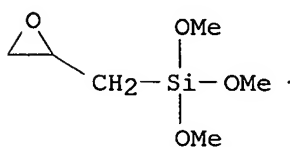
IT 2022-57-5, Glycidyl trimethoxysilane

RL: MOA (Modifier or additive use); USES (Uses)

(rheol. control agent; rheol.-controlled epoxy-based compns.)

RN 2022-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:117276 HCAPLUS

DOCUMENT NUMBER: 134:170794

TITLE: Magnetic microparticle dispersion-type resin carrier
 for two-component developer

INVENTOR(S): Okato, Kanetsugu; Yoshizaki, Kazuki; Fujita, Ryoichi;
 Ikeda, Naotaka; Nakayama, Kenichi

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

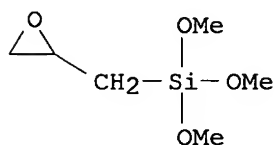
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001042574	A2	20010216	JP 1999-216081	19990730
PRIORITY APPLN. INFO.:			JP 1999-216081	19990730

AB The magnetic microparticle dispersion-type resin carrier comprises a composite grain made up of at least a magnetic microparticle and a binder resin, wherein the magnetic microparticle is processed by a lipophilic agent such as a silane coupling agent in an aq. medium. The silane coupling agent may contains epoxy, amino, and/or methoxy group. This magnetic microparticle dispersion-type resin carrier exhibited little deposition of the carriers and prevented the formation fogging.

IT 20222-57-5, Glycidyltrimethoxysilane
 RL: TEM (Technical or engineered material use); USES (Uses)
 (silane coupling agent; magnetic microparticle dispersion-type resin carrier for two-component developer)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:93873 HCAPLUS

DOCUMENT NUMBER: 134:127276

TITLE: Biofilm-control microbicide

INVENTOR(S): Boettcher, Horst; Sawusch, Stefan; Kallies, Karl-Heinz

PATENT ASSIGNEE(S): Feinchemie G.m.b.H. Sebnitz, Germany

SOURCE: Ger. Offen., 10 pp.
 CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19935230	A1	20010208	DE 1999-19935230	19990728
DE 19935230	C2	20030626		
PRIORITY APPLN. INFO.:			DE 1999-19935230	19990728

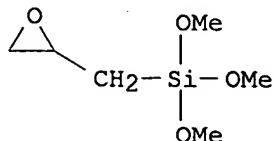
AB A biofilm-control microbicide comprises finely-divided noble metals, or their alloys and salts, and quaternary N, P or S compds. or a phenolic moiety in immobilized form, dispersed in a metal oxide xerogel. The agent is usable for the antimicrobial protection of paper, cardboard, textiles, wood, plastics, ceramics, glass, metal or org. materials.

IT 20222-57-5
 RL: MOA (Modifier or additive use); USES (Uses)

(matrix in biofilm-control microbicide)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:861103 HCAPLUS

DOCUMENT NUMBER: 134:23495

TITLE: Toner and image forming method

INVENTOR(S): Ito, Masanori; Kukimoto, Tsutomu; Takiguchi, Tsuyoshi;
Chiba, Tatsuhiko; Magome, Michihisa; Hashimoto, Akira;
Komoto, Keiji

PATENT ASSIGNEE(S): Canon K. K., Japan

SOURCE: Eur. Pat. Appl., 53 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1058157	A1	20001206	EP 2000-111680	20000531
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6447969	B1	20020910	US 2000-580409	20000530
CN 1276542	A	20001213	CN 2000-108779	20000602
JP 2001312097	A2	20011109	JP 2000-165855	20000602
PRIORITY APPLN. INFO.:			JP 1999-154473	A 19990602
			JP 2000-43662	A 20000221

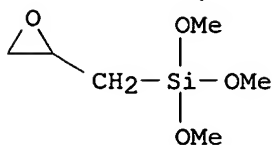
AB A toner is formed of toner particles each comprising a binder resin and iron oxide particles dispersed therein. The toner particles are characterized by uniform but non-surface-exposed dispersion of the iron oxide particles within the toner particles as represented by (i) a carbon content (A) and an iron content (B) giving a ratio $B/A < 0.001$ at surfaces of the toner particles as measured by XPS, (ii) an av. circularity of at least 0.970, and (iii) at least 50% by no. of toner particles satisfying $D/C \leq 0.02$, wherein C denotes a projection area-equiv. circular diam. of each toner particle and D denotes a min. distance of iron oxide particles from a surface of the toner particle, based on a sectional view of the toner particle as obsd. through a transmission electron microscope (TEM). Because of the above features, the toner can exhibit good long-term continuous image forming performances esp. in an electrophotog. image forming process wherein some members contact the image-bearing member, e.g., for charging, developing and/or transfer.

IT 20222-57-5, Glycidyltrimethoxysilane

RL: TEM (Technical or engineered material use); USES (Uses)
(toner and image forming method)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:631985 HCAPLUS

DOCUMENT NUMBER: 133:209060

TITLE: Epoxy resin compositions with minimum hydrogen generation on curing and ferroelectric memory devices packaged with the same

INVENTOR(S): Hirata, Akihiro

PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

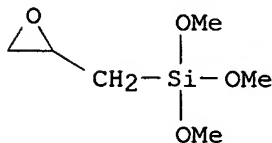
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000248153	A2	20000912	JP 1999-49982	19990226
PRIORITY APPLN. INFO.:			JP 1999-49982	19990226

AB The epoxy resin compns. contain phenolic resins, curing accelerators, inorg. fillers hot-coated with silane coupling agents, and optionally stress modifiers and exhibit H gas generation on heating at 175.degree. for 90 min .ltoreq.20 nmol/1.0 g compn. Thus, a compn. contg. glycidyltrimethoxysilane-coated fused SiO2 microsphere 76.00, a dicyclopentadiene-type epoxy resin I 16.50, a phenol novolak resin 6.50, 1,8-diazabicyclo(5,4,0)undecene-7 0.20, C black 0.30, and carnauba wax 0.50 part generated no detectable amt. of H after 90 min at 175.degree., spiral flow (EMMI-I-66) 98 cm. Its SOP-type ferroelec. packaging had excellent resistance to solder crack and solder heat.

IT **20222-57-5**, Glycidyltrimethoxysilane
 RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)
 (coupling agents; epoxy resin compns. with min. H generation on curing for ferroelec. memory device packagings)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2000:37941 HCAPLUS
 DOCUMENT NUMBER: 132:94393
 TITLE: Liquid epoxy resin compositions for sealing
 semiconductors, cured products of the compositions,
 and semiconductor devices sealed therewith
 INVENTOR(S): Aramoto, Haruki; Mori, Naomi; Kuboki, Kenichi
 PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

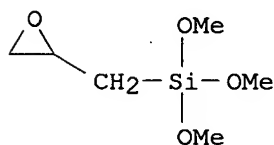
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000017149	A2	20000118	JP 1998-186739	19980702
PRIORITY APPLN. INFO.:			JP 1998-186739	19980702

AB The compns. giving cured products with good resistance to thermal shock and humidity comprise (A) diallylbisphenol-type liq. epoxy resins, (B) ambient-temp.-liq. arom. amine hardeners, (C) silane coupling agents having .gtoreq.1 groups selected from epoxy, amino, SH, vinyl, and methacrylic groups, (D) OH-contg. silicones, and (E) inorg. fillers. Thus, a compn. of diallylbisphenol A diglycidyl ether (epoxy equiv. 218) 100, 4,4'-diamino-3,3'-diethyldiphenylmethane 30, glycidyltrimethoxysilane 5, SH 6018 (polyalkylphenylsiloxane) 5, Aluminum Chelate 0.5, fused SiO₂ 320, and carbon black 1 part showed viscosity 20 Pa-s and long pot life. A PPGA (plastic pin grid array) was sealed with the compn. and allowed to cure at 100.degree. for 2 h and at 150.degree. for 2 h to show good reliability.

IT 20222-57-5, Glycidyltrimethoxysilane
 RL: MOA (Modifier or additive use); USES (Uses)
 (coupling agent; liq. epoxy resin compns. with low viscosity and long pot life for sealing semiconductor devices with good reliability)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 9 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2000:36587 HCAPLUS
 DOCUMENT NUMBER: 132:50677
 TITLE: Manufacture of lightweight reinforced drainage grid
 from epoxy resin composition
 INVENTOR(S): Xu, Pisen; Shi, Xiaoxu
 PATENT ASSIGNEE(S): Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.
 CODEN: CNXXEV

DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

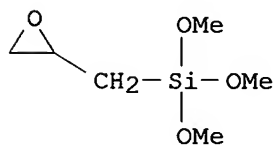
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1155561	A	19970730	CN 1996-115047	19960124
PRIORITY APPLN. INFO.:			CN 1996-115047	19960124

AB The drainage grid is manufd. from E-51 epoxy resin 20-25.2, T31 curing agent 5.06-6.32, silica powder (50-200 mesh) 25.2-75.84, di-Bu phthalate 2.52-6.32, fatty amine 1.3-5.06, glycidyltrimethoxysilane 0.76-1.3, and antioxidant 4010 0.03- 0.76%. The manuf. process comprises: (1) mixing E-51 epoxy resin, di-Bu phthalate, fatty amine, glycidyltrimethoxysilane, and antioxidant 4010 under clockwise stirring at room temp. until air bubbles are disappeared; (2) adding silica filler to the mixt. under clockwise stirring until the filler is completely blended into the mixt. and air bubbles are disappeared to obtain epoxy daub; (3) adding T31 curing agent to the epoxy daub under clockwise stirring for about 5 min; (4) fixing reinforcing mattress in a mold; (5) pouring the epoxy daub into the mold with vibrating, and (6) curing at room temp. for 2 h and then rising at 10.degree./h until 80.degree. for 24 h, demolding, and (7) finishing the products.

IT 20222-57-5, Glycidyltrimethoxysilane
 RL: MOA (Modifier or additive use); USES (Uses)
 (coupling agent; lightwt. strengthened drainage grid comprising epoxy resin compn. contg.)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:729556 HCAPLUS

DOCUMENT NUMBER: 132:36964

TITLE: Surface treatment of PSF-fiber in fiber-reinforced sealing material

AUTHOR(S): Gu, Chengzhong; Wang, Xiantian; Shi, Zhongtang

CORPORATE SOURCE: East China University of Science and Technology, Shanghai, 200237, Peop. Rep. China

SOURCE: Feijinshukuang (1999), (5), 42-44
 CODEN: FEIJDJ; ISSN: 0253-2298

PUBLISHER: Feijinshukuang Bianjibu

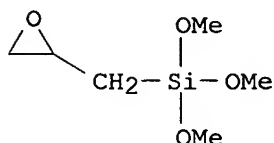
DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The surface of PSF fiber was treated with a mixed coupling agent contg. .nu.-(2,3-epoxy propyltrimethoxysilane), .gamma.-(thio propyltrimethoxysilane), and B-201 (divinyltriaminopropyl). The wettability of treated PSF fiber was improved based on the data of wetting contact angles. The effect of surface treatment on properties of PSF

reinforced sealing material was also discussed. The action mechanism of coupling agent on PSF fiber was also discussed.

IT 20222-57-5, (2,3-Epoxypropyltrimethoxysilane)
 RL: NUU (Other use, unclassified); USES (Uses)
 (surface treatment with a mixed coupling agent contg.; surface treatment of PSF-fiber for use in fiber-reinforced sealing material)
 RN 20222-57-5 HCAPLUS
 CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)

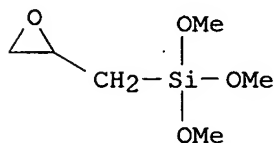


L30 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1999:680198 HCAPLUS
 DOCUMENT NUMBER: 131:287553
 TITLE: Epoxy resin compositions for sealing ferroelectric memory devices
 INVENTOR(S): Hirata, Akihiro
 PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11293089	A2	19991026	JP 1998-104907	19980415
PRIORITY APPLN. INFO.:			JP 1998-104907	19980415

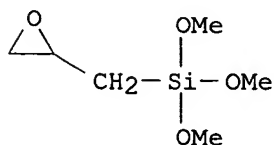
AB The epoxy resin compns. are composed of (1) epoxy resins, (2) phenolic resin hardeners, (3) inorg. fillers, (4) hardening accelerators, and (5) .gtoreq.1 selected from nonorg. Si compd. stress-reducing agents and org. Si compds., and the amt. of H2 gas generated at 175.degree. for 90 min is .ltoreq.20 nano moles/g of total compn. The ferroelec. memory devices are prepd. using the epoxy resin compns. for sealing ferroelec. memory. The preservation of ferroelectricity of the memory is excellent so it can be used in IC and LSI.

IT 20222-57-5, Glycidyltrimethoxysilane
 RL: TEM (Technical or engineered material use); USES (Uses)
 (for prepg. epoxy resin compns. for sealing ferroelec. memory devices)
 RN 20222-57-5 HCAPLUS
 CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1999:648700 HCAPLUS
 DOCUMENT NUMBER: 131:273228
 TITLE: Antisoiling coating materials and thin films therefrom
 INVENTOR(S): Ota, Harumi; Tomikawa, Tsunetoshi; Ito, Manabu
 PATENT ASSIGNEE(S): Toppan Printing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

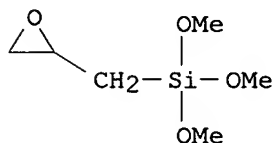
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11278871	A2	19991012	JP 1998-86097	19980331
PRIORITY APPLN. INFO.:			JP 1998-86097	19980331
AB The materials contain F-contg. organosilicon compds. prepd. by reaction of (A) silanes having reactive groups, (B) epoxy-contg. silanes, and (C) fluorinated org. acids. The films may be chem. linked to substrates made from glass, plastics, or metal oxides. Thus, 0.1 g propoxidotrimethoxysilane was added gradually to a mixt. of 0.1 g perfluorohexylcarboxylic acid and 0.5 g amino-modified polydimethylsiloxane and allowed to react at 50.degree. for 2 h to give a product, which was dild. with Me2CHOH, applied on glass, and cured at 120.degree. for 2 h to form a coating showing contact angle 110.degree. initially and 108.degree. after scratching by cotton and good soiling resistance to an oil ink.				
IT 20222-57-5DP, reaction products with amino silicones and perfluoroalkyl carboxylic acid RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (antisoiling, oil- and water-repellent, scratch-resistant coatings)				
RN 20222-57-5 HCAPLUS				
CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)				



L30 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1998:701018 HCAPLUS
 DOCUMENT NUMBER: 129:299666
 TITLE: Ferromagnetic particles from coal ash for immobilization of biomaterials
 INVENTOR(S): Mueller, Peter-Juergen; Ozegowski, Joerg-Hermann; Liebisch, Wolfgang; Noack, Bernd; Kummer, Christel
 PATENT ASSIGNEE(S): Hans-Knoell-Institut fuer Naturstoff-Forschung e.V., Germany; Friedrich-Schiller-Universitaet Jena; VTI Thueringer Verfahrenstechnisches Institut fuer Umwelt und Energie e.V.

SOURCE: Ger. Offen., 8 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	DE 19715153	A1	19981015	DE 1997-19715153	19970411
PRIORITY APPLN. INFO.:				DE 1997-19715153	19970411
AB	Easily produced, low-porosity magnetic particles produced from coal ash or fly ash are treated and used to immobilize biomaterials or non-biol. polymers. The ash-derived particles are chem. treated to create a reactive layer on the particles to which such bioactive materials such as enzymes, microbes or cells may be attached. Magnetic particles were isolated from fly ash using a magnetic field, treated with HCl, dried and sized. The particles were treated with aminoethoxypropylsilane and the silanized surface was activated with glutaraldehyde before addn. of the enzyme to be immobilized, i.e., hyaluronidase.				
IT	2022-57-5. RL: PEP (Physical, engineering or chemical process); PROC (Process) (particles treated with; ferromagnetic particles from coal ash for immobilization of biomaterials)				
RN	2022-57-5 HCAPLUS				
CN	Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)				

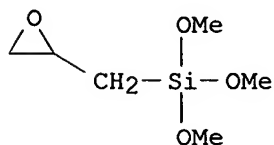


L30 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1998:462423 HCAPLUS
 DOCUMENT NUMBER: 129:203815
 TITLE: The effectiveness of silane adhesion promoters in the performance of polyurethane adhesives
 AUTHOR(S): Schreiber, H. P.; Qin, Renyan; Sengupta, Ashok
 CORPORATE SOURCE: Department of Chemical Engineering, CRASP, Ecole Polytechnique, Montreal, QC H3C 3A7, Can.
 SOURCE: Proceedings of the Annual Meeting of the Adhesion Society (1998), 21st, 71-73
 CODEN: PAMSEF; ISSN: 1086-9506
 PUBLISHER: Adhesion Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The performance of polyurethane adhesives modified by the presence of silanes and used to bond selected polymer substrates and glass is studied. Adhesion and its relation under aggressive aging conditions is interpreted in terms of acid-base interactions at the adhesive/substrate interface. Epoxy silane was found to be the most effective adhesion promoter.
 IT 2022-57-5, (2,3-Epoxypropyl)trimethoxysilane
 RL: MOA (Modifier or additive use); USES (Uses)

(effectiveness of silane adhesion promoters in performance of polyurethane adhesives)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:389209 HCAPLUS

DOCUMENT NUMBER: 129:96193

TITLE: Liquid underfill materials for sealing of semiconductor packaging with improved crack and peeling resistance

INVENTOR(S): Kondo, Akihiro; Takeda, Toshiro

PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10158366	A2	19980616	JP 1996-325390	19961205
JP 3351974	B2	20021203		

PRIORITY APPLN. INFO.: JP 1996-325390 19961205

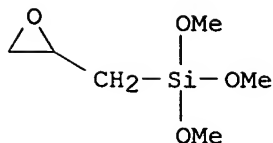
AB The potting materials contain (a) liq. epoxy resins, (b) alkylated diaminodiphenylmethanes as curing agents, (c) silane coupling agents contg. .gtoreq.1 functional groups selected from epoxy, amino, and SH, and (d) inorg. fillers with av. particle diam. (D) 0.4-6 .mu.m contg. 20-100% (based on total fillers) fillers with .ltoreq.1 .mu.m particle diam., .ltoreq.30% fillers with .gtoreq.20 .mu.m particle diam., and no .gtoreq.50 .mu.m particle diam in the wt. ratio of (c) / [(a) + (b) + (c)] = 0.01-0.05 and (d) / [(a) + (b) + (c) + (d)] = 0.50-0.80. Thus, bisphenol F-type epoxy resin 100, diethyldiaminodiphenylmethane 21, tetramethyldiaminodiphenylmethane 21, glycidyltrimethoxysilane 3, fused silica (D 0.8 .mu.m) 200, and carbon black 1 part were kneaded to give a liq. sealing material, which was used for a semiconductor packaging with good peeling and crack resistances in pressure-cooker and temp.-cycle tests.

IT 20222-57-5P

RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)
(coupling agent; prepn. of liq. underfill materials of epoxy resins for sealing of semiconductor packaging)

RN 20222-57-5 HCAPLUS

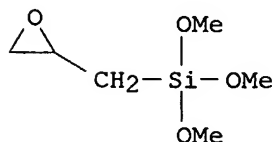
CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)

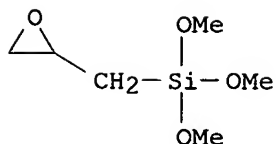


L30 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1997:521983 HCAPLUS
 DOCUMENT NUMBER: 127:136836
 TITLE: Crack- and peeling-resistant liquid epoxy resin
 sealing materials for semiconductor packages
 INVENTOR(S): Kondo, Akihiro
 PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09176294	A2	19970708	JP 1995-341580	19951227
JP 3137314	B2	20010219		

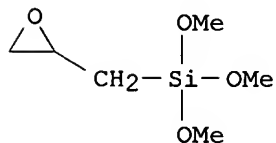
PRIORITY APPLN. INFO.: JP 1995-341580 19951227
 AB Title materials contain (a) liq. epoxy resins, (b) liq. alkylated diaminodiphenylmethane curing agents, (c) 0.30-0.10 [to (a + b)] epoxy-contg. polybutadienes, (d) 0.02-0.10 [to (a + b + c)] silane coupling agents contg. .gtoreq.1 functional groups chosen from epoxy, NH₂, and SH, and (e) 0.50-0.80 [to (a + b + c + d + e)] inorg. fillers having following particle size distribution: av. diam. 3-10 .mu.m, .ltoreq.1 .mu.m particle content 6-45%, .gtoreq.30 .mu.m particle content .ltoreq.25%. Thus, bisphenol F diglycidyl ether epoxy resin 100, alkylated diaminodiphenylmethane 42, polybutadiene rubber 5, glycidyltrimethoxysilane 6, carbon black 1, and molten silica (av. particle size 5.4 .mu.m, .ltoreq.1 .mu.m particle content 30%, 1-30 .mu.m particle content 55%, .gtoreq.30 .mu.m particle content 15%) 350 parts were mixed to prep. a semiconductor package showing peeling and crack resistance in a pressure cooker test and a thermal shock test.
 IT 2022-57-5
 RL: DEV (Device component use); MOA (Modifier or additive use); PRP (Properties); USES (Uses)
 (coupling agents; crack- and peeling-resistant liq. epoxy resin sealing materials for semiconductor packages)
 RN 2022-57-5 HCAPLUS
 CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)





L30 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1996:509330 HCAPLUS
 DOCUMENT NUMBER: 125:144978
 TITLE: Curable siloxane coating compositions for textiles
 INVENTOR(S): Collins, Allan
 PATENT ASSIGNEE(S): Dow Corning Limited, UK
 SOURCE: Eur. Pat. Appl., 8 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 718432	A1	19960626	EP 1995-308711	19951201
EP 718432	B1	20021002		
R: DE, FR, GB, SE				
TW 408163	B	20001011	TW 1995-84112205	19951117
JP 08209068	A2	19960813	JP 1995-318275	19951206
PRIORITY APPLN. INFO.:			GB 1994-24602	A 19941206
AB A curable siloxane coating compn. which exhibits improved cure and adhesion to textiles comprises a compn. curable by a hydrosilylation reaction and includes a silicone resin, a hydrosilylation reaction inhibitor and an adhesion promoting additive which comprises an organosilicon compd. having epoxy and alkoxy functionalities, an alkenylsilanol-terminated organosiloxane, an organotitanium compd. and a metal chelate compd.				
IT 20222-57-5				
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)				
(adhesion promoter; hydrosilylation-curable siloxane coating compns. for textiles)				
RN 20222-57-5 HCAPLUS				
CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)				



L30 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1996:428506 HCAPLUS
 DOCUMENT NUMBER: 125:61070
 TITLE: Manufacture of covers of light source of illuminators

INVENTOR(S): Yasuda, Ayumi; Okibe, Junko; Aoki, Shinichi;
Kuramitsu, Osamu
PATENT ASSIGNEE(S): Matsushita Electric Works Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

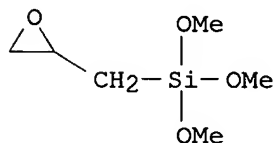
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08102296	A2	19960416	JP 1994-237908	19940930
JP 3186466	B2	20010711		

PRIORITY APPLN. INFO.: JP 1994-237908 19940930

AB Light source covers of illuminators are painted with a light-resistant coating material contg. quinacridone pigments, acrylic base resins, and silyl group-contg. curing agents. UV absorbers, photo stabilizers, antioxidants, low- and high-mol. wt. dispersants are used to improve light resistance and transparency of the paint. One example of such paint contained 2,9-dimethylquinacridone (Pigment Red 122) 7, methacrylic acid-Me methacrylate copolymer 30, toluene 31.4, Me Et ketone 31.4, and an org. UV absorbent 0.2 wt.%.
IT 20222-57-5

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(hardening agent; paints for covers of light source of illuminators)

RN 20222-57-5 HCAPLUS
CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1990:201223 HCAPLUS
DOCUMENT NUMBER: 112:201223
TITLE: Gas separation membranes with porous glass substrate
INVENTOR(S): Imamura, Toshihide; Oake, Hiroshi
PATENT ASSIGNEE(S): Komatsu, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01090015	A2	19890405	JP 1987-244383	19870930

PRIORITY APPLN. INFO.: JP 1987-244383 19870930

AB The surface of a porous glass substrate is modified with a silane coupling

agent, which contains an alkoxy terminal group-OR (where R = Me, Et, Pr, Bu, etc.) at one end to react with the surface, and another terminal group (e.g., alkyl, vinyl, amino, hydroxyl, carboxyl, sulfone, isocyanate, epoxy group) at the other end. Addnl., the modified surface can be further treated by reacting its free terminal groups with a basic compd., such as amines, NH₃, quinoline and its derivs., and pyridine and its derivs., for obtaining more selectivity. The membrane, thus produced, has excellent permeability and high selectivity, and can be used for concn. of O from air.

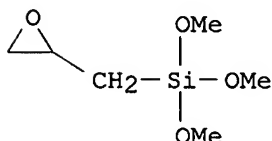
IT 20222-57-5, 2,3-Epoxypropyltrimethoxysilane

RL: USES (Uses)

(in manuf. of permselective membranes, on porous glass substrate, for gas sepn.)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1984:573421 HCAPLUS

DOCUMENT NUMBER: 101:173421

TITLE: Alumina-based catalyst for the isomerization of alkenes

INVENTOR(S): Hsing, Hsu Hui

PATENT ASSIGNEE(S): Tenneco Oil Co., USA

SOURCE: Ger. Offen., 32 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3340958	A1	19840517	DE 1983-3340958	19831111
DE 3340958	C2	19921119		
CA 1215963	A1	19861230	CA 1983-437322	19830922
GB 2129701	A1	19840523	GB 1983-26271	19830930
GB 2129701	B2	19861008		
NL 8303824	A	19840601	NL 1983-3824	19831107
NL 191582	B	19950601		
NL 191582	C	19951003		
FR 2536066	A1	19840518	FR 1983-17751	19831108
FR 2536066	B1	19861024		
JP 59102437	A2	19840613	JP 1983-212287	19831111
JP 04072809	B4	19921119		
US 5043523	A	19910827	US 1990-624530	19901207

PRIORITY APPLN. INFO.:

US 1982-440862 19821112

US 1984-588400 19840312

AB Catalysts for the isomerization of 1-butene [106-98-9] or 2-butene

[107-01-7] to isobutene [115-11-7] are prep'd. by Si modification of a low-Na₂O .gamma.-Al₂O₃. The Al₂O₃ is dried at 300.degree. for 8 h and then treated at 25-500.degree. for 5 to 15 min contact time with gaseous or liq. trimethoxy-1-(2,3-epoxy)propylsilane [20222-57-5] or Me₃SiOSiMe₃ [107-46-0]; this is followed by removal of the unreacted silane by pumping and calcination in air at 300-575.degree. for 1-16 h. The product contains 0.16-1.59 wt.% Si, occurring mainly as a surface layer.

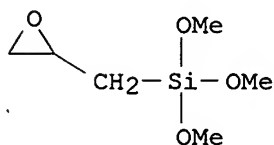
IT 20222-57-5

RL: USES (Uses)

(alumina treated with, catalysts, for isomerization of butene)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1979:105528 HCAPLUS

DOCUMENT NUMBER: 90:105528

TITLE: Dyeing of glass fibers

INVENTOR(S): Yoshida, Akio; Hosoda, Toru; Saikatsu, Hiroaki

PATENT ASSIGNEE(S): Dainichiseika Color and Chemicals Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53121815	A2	19781024	JP 1977-36181	19770401
JP 59017058	B4	19840419		

PRIORITY APPLN. INFO.: JP 1977-36181 19770401

AB Glass fibers were dyed with epoxy group-reactive dyes in the presence of epoxy silanes. For example, glass fiber was impregnated to wet pickup 30% in a bath of C.I. Disperse Red 5 2, (3-glycidyloxypropyl)trimethoxysilane [2530-83-8] 2, and acetone 96 parts, dried, and heat-treated at 140.degree. for 5-10 min to give a red dyeing with excellent washfastness and abrasionfastness.

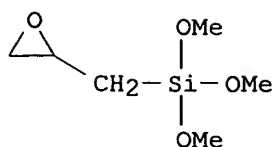
IT 20222-57-5

RL: USES (Uses)

(dyeing of glass fibers in presence of)

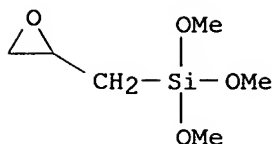
RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 22 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1977:29606 HCAPLUS
 DOCUMENT NUMBER: 86:29606
 TITLE: Catalytic preparation of olefin oxides
 INVENTOR(S): McMullen Charles H.
 PATENT ASSIGNEE(S): Union Carbide Corp., USA
 SOURCE: Ger. Offen., 23 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2607768	A1	19760909	DE 1976-2607768	19760226
DE 2607768	C3	19780928		
US 3993673	A	19761123	US 1975-645038	19751229
CA 1071219	A1	19800205	CA 1976-245123	19760205
BE 838953	A1	19760826	BE 1976-164656	19760226
NL 7601988	A	19760831	NL 1976-1988	19760226
FR 2302302	A1	19760924	FR 1976-5449	19760226
FR 2302302	B1	19790824		
JP 51110506	A2	19760930	JP 1976-19523	19760226
JP 53044442	B4	19781129		
ES 445564	A1	19770616	ES 1976-445564	19760226
GB 1529892	A	19781025	GB 1976-7584	19760226
PRIORITY APPLN. INFO.:			US 1975-553583	19750227
			US 1975-645038	19751229
			DE 1969-1942502	19700226
			DE 1972-2231374	19730927
AB	Olefins, e.g., 1-octene, styrene, cyclohexene, allyl alc., CH ₂ :CHSi(OEt) ₃ , linseed oil, and ethylene, were epoxidized with 95% H ₂ O ₂ in 1,4-dioxane in the presence of As ₂ O ₃ catalyst to give peroxide conversion of 30-100%. 1-Octene was also epoxidized in the presence of other arsenic compds., e.g., As(OEt) ₃ , As, As ₂ O ₅ , AsCl ₃ , Ph ₃ As, and PhAsO ₃ H in 1,4-dioxane with 17-84% H ₂ O ₂ conversions and in the presence of As ₂ O ₃ in other solvents, e.g., EtOH, Me Cellosolve, (MeOCH ₂) ₂ , MeOAc, di-Et Carbitol, (AcOCH ₂) ₂ , and Me ₃ COH with 8-95% H ₂ O ₂ conversions.			
IT	20222-57-5P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)			
RN	20222-57-5 HCAPLUS			
CN	Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)			



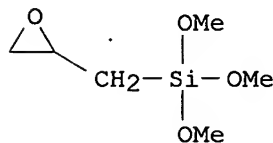
L30 ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1975:32203 HCAPLUS
 DOCUMENT NUMBER: 82:32203
 TITLE: Glass fiber-reinforce elastomers
 INVENTOR(S): Marzocchi, Alfred
 PATENT ASSIGNEE(S): Owens-Corning Fiberglas Corp.
 SOURCE: U.S., 10 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3837892	A	19740924	US 1972-221680	19720128
PRIORITY APPLN. INFO.:			US 1972-221680	19720128

AB The adhesion of glass fibers to natural and polyurethane rubbers was improved by coating the fibers with amino-, hydroxy-, or epoxy-substituted organo silanes and then overcoating with a polyurethane prepolymer (contg. free isocyanates) or with a polyisocyanate and a polyurethane prepolymer or polyol. Thus, glass fibers were treated with aq. δ -aminobutyltriethoxysilane [3069-30-5], dried, twisted and (or) plied together to form glass fiber bundles which were treated with TDI [26471-62-5]-HO-terminated poly(1,3-butadiene) [9003-17-2] prepolymer and dried to give fiber bundles that securely bonded to natural rubber.

IT **20222-57-5**
 RL: USES (Uses)
 (adhesives, contg. polymethylene poly(phenylene isocyanate)-polypropylene glycol prepolymer, for bonding glass fibers to elastomers)

RN 20222-57-5 HCAPLUS
 CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 1972:4527 HCAPLUS
 DOCUMENT NUMBER: 76:4527
 TITLE: Surface modifying metal or nonmetal oxides with organosilicon compounds
 INVENTOR(S): Fletcher, William J.

PATENT ASSIGNEE(S): Cabot Corp.
 SOURCE: Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

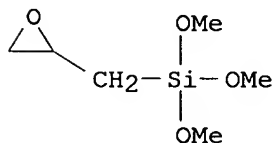
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2028702	A	19701217	DE 1970-2028702	19700611
GB 1312665	A	19730404	GB 1970-28316	19700611
FR 2052538	A5	19710409	FR 1970-21781	19700612
PRIORITY APPLN. INFO.:			US 1969-833153	19690613

AB Powd. silica [7631-86-9] or alumina [1344-28-1] is passed through a venturi into atomized hexamethyldisilazane [999-97-3], 3-(methacryloyloxy)propyltrimethoxysilane [2530-85-0], (3-aminopropyl)triethoxysilane [919-30-2], or a similar compd., giving uniformly coated particles.

IT **20222-57-5**
 RL: USES (Uses)
 (coating with, on powd. alumina and silica)

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L30 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1971:450061 HCAPLUS

DOCUMENT NUMBER: 75:50061

TITLE: Reinforced polyamide composition

PATENT ASSIGNEE(S): Monsanto Co.

SOURCE: Fr., 50 pp.
 CODEN: FRXXAK

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2032588		19701127	FR	19691230

AB Reinforced polyamides with improved multiaxial impact strength were prepd. comprising a cryst. mineral charge having a Mohs hardness >4 and an organosilane coupling agent. Molten Plaskon 8205 (nylon 6) was mixed with 40% .alpha.-alumina having an av. dimension 5 .mu. and with 1% (of the wt. of Al2O3) (.gamma.-aminopropyl)triethoxysilane to give a product with improved multiaxial impact strength. Calcined kaolin and quartz were also used as reinforcing material.

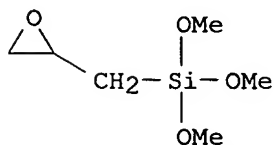
IT **20222-57-5**

RL: USES (Uses)

(nylon reinforced with minerals treated with, mech. properties of)

RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



L30 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1968:88805 HCAPLUS

DOCUMENT NUMBER: 68:88805

TITLE: Consolidation of layers of loose soil with resins

INVENTOR(S): Treadway, Barney R.; Parker, Phillip Harold, Jr.

PATENT ASSIGNEE(S): Chevron Research Co.

SOURCE: Fr., 8 pp.

CODEN: FRXXAK

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1490846		19670804		

PRIORITY APPLN. INFO.: US 19650902

AB Consolidation of loose earth formations during oil well drilling is carried out by impregnation with an epoxy resin compn. Thus, sand particles of 0.1-mm. size were placed in Hassler tube, vibrated 15 min., and satd. with brine contg. 25,000 ppm. NaCl; 300 ml. diesel oil (I) was passed through the sand at 0.3 ml./sec., followed by 300 ml. Me₂CO and 300 ml. I successively at 0.6 ml./sec. A 1:10 epoxy (Novolac 438)-Nadic Methyl Anhydride mixt. (80 ml.) contg. 1% 2,3-epoxypropyl(trimethoxy)silane (II) was injected into the sand at 66.degree. and 0.02 ml./sec. followed by the successive injections of 300 ml. I and I contg. 2% PhCH₂NMe₂ at 0.2 ml./sec. The treated particles were kept 16 hrs., after which the above fluids were passed through in the reverse order. After 4 hrs., the resulting core with compression resistance 293 kg./m.² was removed and kept 10, 30, or 60 days in boiling brine, after which the compression resistance changed to 275, 266, or 246 kg./cm.², resp. When the above process was repeated without II, corresponding values of 193, 139, 150, and 112 kg./cm.² were obtained. II may be replaced by 2-(3,4-epoxycyclohexyl)ethyl(trimethoxy)silane (III). Bisphenol A-epichlorohydrin resin and epoxy resin (Novolac 431) were also used in the presence of II or III, and styrene oxide.

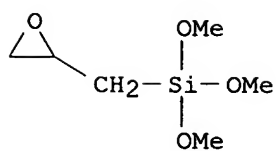
IT 20222-57-5

RL: USES (Uses)

(in sand consolidation and petroleum wells)

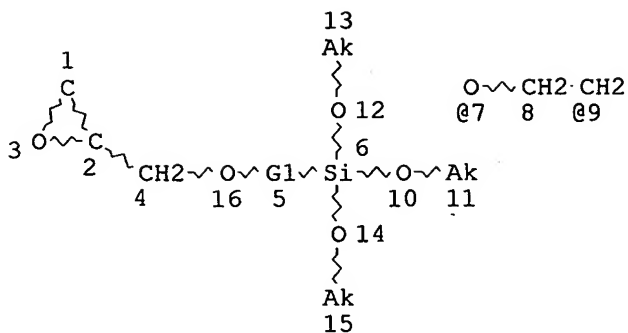
RN 20222-57-5 HCAPLUS

CN Silane, trimethoxy(oxiranylmethyl)- (9CI) (CA INDEX NAME)



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L9

STR



Structure like the one
represented in the EP/WO
equivalent Record

REP G1=(1-20) 9-16 7-6

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 11

CONNECT IS E1 RC AT 13

CONNECT IS E1 RC AT 15

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

L11 1 SEA FILE=REGISTRY SSS FUL L9

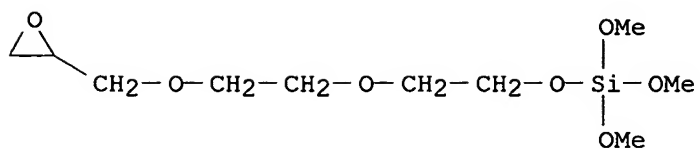
L12 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L11

=> d ibib abs hitstr

L12 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS on STN
 ACCESSION NUMBER: 2001:676340 HCAPLUS
 DOCUMENT NUMBER: 135:223796
 TITLE: Linker system for activating surfaces for
 bioconjugation and methods for their use
 INVENTOR(S): Klapproth, Holger
 PATENT ASSIGNEE(S): Biochip Technologies G.m.b.H., Germany
 SOURCE: Eur. Pat. Appl., 11 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

this applic.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1132739	A1	20010912	EP 2000-110428	20000516
EP 1132739	B1	20010926		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 206211	E	20011015	AT 2000-110428	20000516
ES 2164632	T3	20020301	ES 2000-110428	20000516
WO 2001088535	A1	20011122	WO 2001-EP5557	20010516
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2003022189	A1	20030130	US 2002-30999	20020116
PRIORITY APPLN. INFO.: EP 2000-110428 A 20000516				
WO 2001-EP5557 W 20010516				
OTHER SOURCE(S): MARPAT 135:223796				
AB	The present invention relates to a linker system for activating surfaces for bioconjugation, and particularly to a linker system having a novel hydrophilic spacer group. The inventive linker system may be used for the construction of sensor chips or biochips for the detection of sample biomols. Higher hybridization signals were obtained when {1-[2-(Glycidyl)-ethoxy]-ethoxy}trimethoxysilane (GEETS)-treated slides were used in the coupling of amine-modified oligonucleotides instead of epoxypropyltrimethoxysilane.			
IT	359404-47-0P			
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (linker system for activating surfaces for bioconjugation and methods for use)			
RN	359404-47-0 HCAPLUS			
CN	Silicic acid (H4SiO4), trimethyl 2-[2-(oxiranylmethoxy)ethoxy]ethyl ester (9CI) (CA INDEX NAME)			



REFERENCE COUNT:

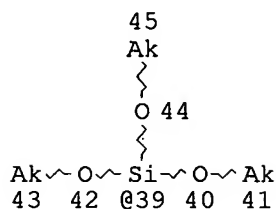
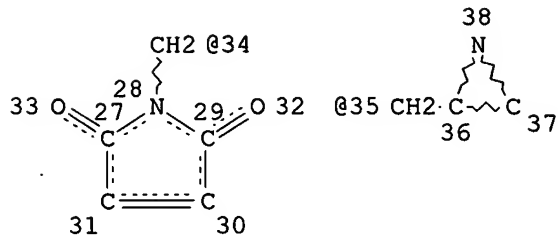
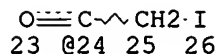
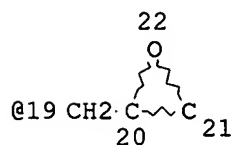
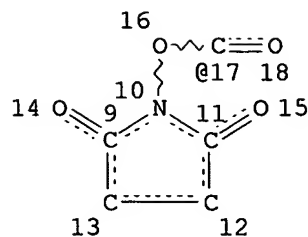
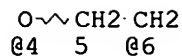
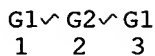
4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L16

STR



VAR G1=7/17/19/24/34/35/39 → Reactive Groups

REP G2=(2-20) 4-1 6-3 → PEG Linker.

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 41

CONNECT IS E1 RC AT 43

CONNECT IS E1 RC AT 45

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 45

STEREO ATTRIBUTES: NONE

L18 3 SEA FILE=REGISTRY SSS FUL L16

L19 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L18

=> d ibib abs hitstr 1-3

L19 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:113110 HCAPLUS

DOCUMENT NUMBER: 138:161019

TITLE: Heat-developable silver halide photosensitive material containing surfactant-intercalated compound

INVENTOR(S): Hanyu, Takeshi

PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003043625	A2	20030213	JP 2001-236456	20010803

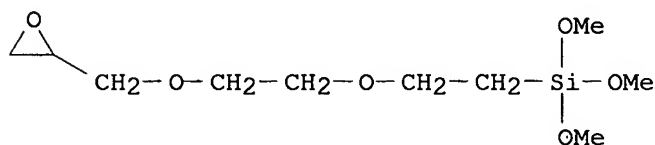
PRIORITY APPLN. INFO.: JP 2001-236456 20010803

AB The photosensitive material contains inclusion compds. comprising layered compds. in which .gtoreq.1 F-contg. anionic or nonionic surfactants are intercalated. The layered compds. may be clay minerals and the surfactants have F-substituted (excluding perfluoro) alkyl or alkenyl groups. Preferably, the inclusion compds. are added in a protective layer together with a matting agent and a crosslinking agent. The photosensitive material has high scratch resistance and high-d. images with low haze can be formed.

IT **496850-74-9**
 RL: CAT (Catalyst use); MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (crosslinking agent; heat-developable silver halide photosensitive material contg. surfactant-intercalated clay mineral in protective layer for high scratch resistance)

RN 496850-74-9 HCAPLUS

CN 2,6,9-Trioxa-3-siladecane, 3,3-dimethoxy-10-oxiranyl- (9CI) (CA INDEX NAME)



L19 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1996:731276 HCAPLUS

DOCUMENT NUMBER: 125:342717

TITLE: Silver halide photographic emulsion and material and its processing

INVENTOR(S): Hanyu, Takeshi

PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08220673	A2	19960830	JP 1995-29468	19950217

PRIORITY APPLN. INFO.: JP 1995-29468 19950217

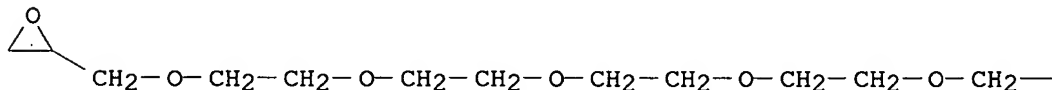
AB The emulsion is chem. sensitized in the presence of .gtoreq.1 compd. selected from a CO₂H-active film-hardening agent, an active vinyl sulfonyl compd., an active halo compd., an epoxy-contg. silane, a carbodiimide compd., ethyleneurea-HCHO adduct, hydantoin-HCHO adduct, an active acryloyl compd., and Group V or VIII metals. The material obtained from the emulsion is treated with a developer contg. ascorbic acid or isoascorbic acid. The treatment time between development and drying of the material .ltoreq.60 s. The material showed high sensitivity, low fog, and good sharpness.

IT **183679-63-2**
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
 (high-sensitivity chem. sensitized silver halide photog. emulsion and its processing)

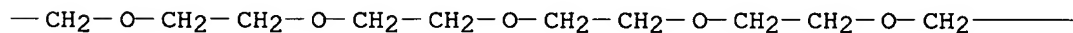
RN 183679-63-2 HCAPLUS

CN 2,6,9,12,15,18,21,24,27,30,33-Undecaoxa-3-silatetatriacontane, 3,3-dimethoxy-34-oxiranyl- (9CI) (CA INDEX NAME)

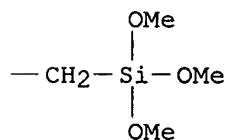
PAGE 1-A



PAGE 1-B



PAGE 1-C



L19 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1986:131487 HCAPLUS

DOCUMENT NUMBER: 104:131487

TITLE: Regulation of the properties of perchlorovinyl-polyurethanes by introduction of plasticizer-diluents

AUTHOR(S): Laskovenko, N. N.; Sytnik, L. L.; Krivchenko, G. N.; Tsykhanskaya, I. I.

CORPORATE SOURCE: Inst. Khim. Vysokomol. Soedin., Kiev, USSR

SOURCE: Lakokrasochnye Materialy i Ikh Primenenie (1985), (5), 21-3

CODEN: LAMAAD; ISSN: 0023-737X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Small amts. (3-5%) of plasticizers either decreased or increased the viscosity of chlorinated PVC-polyurethane coatings, depending on the chem. structure of the plasticizers and polyurethanes, whereas larger amts. of plasticizers acted only as diluents. Addn. of 3-5% plasticizers decreased the glass temp. and flow point of the coatings, but did not change significantly or increased the hardness and the degree of crosslinking of the cured coatings. The plasticizers used in the study included di-Bu phthalate [84-74-2], castor oil, epoxy silane [101155-98-0], DEG-1 [25928-94-3], and UP-650T [68665-20-3].

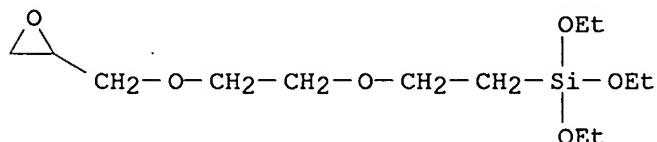
IT 101155-98-0

RL: MOA (Modifier or additive use); USES (Uses) .

(plasticizers, chlorinated PVC-polyurethane coatings contg., properties of)

RN 101155-98-0 HCAPLUS

CN 2,5,9-Trioxa-8-silaundecane, 8,8-diethoxy-1-oxiranyl- (9CI) (CA INDEX NAME)



=> d que 124

L20 1 SEA FILE=REGISTRY ABB=ON PLU=ON PEG/CN
 L21 298 SEA FILE=HCAPLUS ABB=ON PLU=ON (L20 OR PEG OR POLYETHYLENE
 GLYCOL) (L) LINKER?
 L22 117 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND (BIOCONJUGAT? OR
 CONJUGAT?)
 L24 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND (BIOMOL? OR REACTIVE
 GROUP)

=> d 124 ibib abs 1-2

L24 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:340027 HCAPLUS

TITLE: Design and synthesis of pH-responsive polymeric
 carriers that target uptake and enhance the
 intracellular delivery of oligonucleotides

AUTHOR(S): Murthy, Niren; Campbell, Jean; Fausto, Nelson;
 Hoffman, Allan S.; Stayton, Patrick S.

CORPORATE SOURCE: Department of Bioengineering, University of
 Washington, Seattle, WA, 98195, USA

SOURCE: Journal of Controlled Release (2003), 89(3), 365-374
 CODEN: JCREEC; ISSN: 0168-3659

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The delivery of **biomol.** therapeutics that function
 intracellularly remains a significant challenge in the field of
 biotechnol. In this report, a new family of polymeric drug carriers that
 combine cell targeting, a pH-responsive membrane-disruptive component, and
 serum-stabilizing polyethylene glycol (PEG)
 grafts, is shown to direct the uptake and endosomal release of
 oligonucleotides in a primary hepatocyte cell line. These polymers are
 called encrypted polymers and are graft terpolymers that consist of a
 hydrophobic, membrane-disruptive backbone onto which hydrophilic
 PEG chains have been grafted through acid-degradable
 linker acetal linkages. In this report, the ability of the
 encrypted polymers to deliver rhodamine-labeled oligonucleotides or
 PEG-FITC (a model macromol. drug) (5 kDa) into the cytoplasm of
 hepatocytes was investigated by fluorescence microscopy. Two new
 encrypted polymer derivs. (polymers E2 and E3) were synthesized that
 contained lactose for targeting to hepatocytes. Polymer E2 also has
 PEG-FITC conjugated to it, as a model macromol. drug,
 and polymer E3 contains a pendant hexalysine moiety for complexing
 oligonucleotides. The results of the fluorescence microscopy expts. show
 that the encrypted polymers direct vesicular escape and efficiently
 deliver oligonucleotides and macromols. into the cytoplasm of hepatocytes.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:212037 HCAPLUS

DOCUMENT NUMBER: 120:212037

TITLE: Immobilization of **biomolecules** on
 perfluorocarbon surfaces

INVENTOR(S): Eveleigh, John W. D.

PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 428,154,
abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5270193	A	19931214	US 1991-785887	19911024
PRIORITY APPLN. INFO.:			US 1989-428154	19891027

AB A ligand or ligand receptor is securely but reversibly attached to a perfluorocarbon carrier with a water-sol. polymer, a perfluorocarbon anchoring group, and optionally a **linker**. For example, the **biomol.** is covalently attached to the polymer, followed by covalently attaching the anchoring group and attaching the product to the carrier. Alternatively, the anchoring group is covalently attached to the polymer, followed by attachment of the product to the carrier and then covalently attaching a **biomol.** to the polymer. The polymer may be starch, dextran, agarose, **PEG**, or poly(vinyl alc.). The immobilized ligand or receptor is useful in affinity sepns. and immunoassays. Thus, the triazine dye, Procion Red H-3B, was **conjugated** with poly(vinyl alc.) in aq. soln., and the **conjugate** was acylated with pentafluorobenzoyl chloride and adsorbed onto a Perfex 35S solid perfluorocarbon chromatog. carrier. A column packed with the dye-bearing carrier was used for chromatog. purifn: of crude muscle lactate dehydrogenase (purifn. factor 4.8, recovery 71%).